

## **Title: Physiotherapy students' views on the changes to education during the COVID-19 pandemic in preparation for their role as a Band 5 physiotherapist**

### **Background**

On 11<sup>th</sup> March 2020, the World Health Organisation (WHO) declared COVID-19 a global pandemic [1]. The WHO set out recommendations for people to isolate and socially distance themselves from others [1]. In the UK, the Prime minister announced the first lockdown ordering people to stay at home with lockdown measures legally coming into force on 26<sup>th</sup> March 2020 [2].

Undoubtedly, the COVID-19 pandemic impacted healthcare workers both physically and mentally, having to provide care to patients that were severely unwell with limited resources in an unprecedented situation [3]. According to Health Education England (HEE) 2020, along with other medical students, physiotherapy students have been noticed as a group that has been affected by the COVID-19 pandemic [4]. Traditionally, in the UK before the COVID-19 pandemic, an accredited physiotherapy programme consisted of clinical placements, (a minimum of 1000 hours required) and campus-based education with the development of hands-on practical skills [6]. In 2020, the Health Care Professionals Council (HCPC) acknowledged the disruption that allied healthcare professional students faced with placement disruption and changes to education [7].

Over the past two years, there have been many studies investigating changes to education and problems faced by physiotherapy students during the COVID-19 pandemic. Soundy et al. in 2021, investigated the mental state of physiotherapy students during the pandemic which identified concerns that students had over the lack of control and uncertainty, worsened by the impact of COVID-19 on graduation and placement experience [5].

Rossenttini et al. in 2021, investigated physiotherapy student satisfaction with online learning during the pandemic, this study reported that there was no significant difference in student satisfaction between online and face-to-face learning [8]. However, students completing learning online had improved academic performance compared to those studying face-to-face [8]. Similarly, a study from Brunel University found that students completing studies online achieved a grade 9.6% higher than those completing the same course face-to-face [9]. Results from an online questionnaire reported by Chesterton revealed that studying online gave physiotherapy students flexibility and was a convenient method of learning [10]. Yet, 79% of students participating in the questionnaire felt that they were disadvantaged by online learning, with it having an adverse impact on their subject understanding. The Chartered Society of Physiotherapy (CSP) has highlighted some challenges with virtual learning including internet connectivity, security of data, availability of software and hardware, and the inability to provide solid practical feedback [11]. However, online learning does allow flexible learning, a reduction in travel costs, new skills, and the ability to learn at a different pace [11].

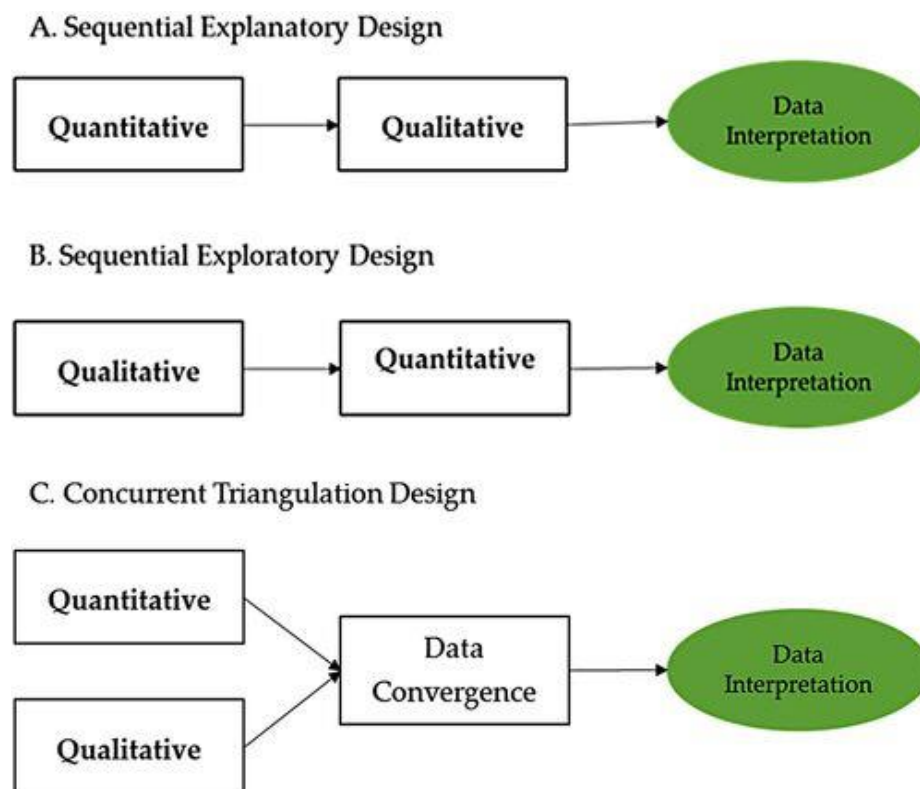
The above studies only investigate information at the time of study and not beyond and the research does not investigate how prepared the former students felt once completing their course and if there was any impact once qualified. This study aimed to explore if the changes in education faced by physiotherapy students during the COVID-19 pandemic affected their preparedness as they became newly qualified, rotational Band 5s working in the NHS. This transition has been studied in the nursing profession which highlighted the need for increased mental health support and preceptorship programmes [12]. This research within the physiotherapy profession is important for the maintenance of academic and professional standards and to ensure high-quality patient care.

## Methods

### Design

To address the study aims, a concurrent triangulation mixed methods design has been chosen, and data has been gathered qualitatively in the form of focus groups and quantitatively in the form of an online questionnaire. In this study design, both sets of data were collected at the same time and analysed independently (Figure 1). Quantitative data was collected by a fellow MSc student, however, this study will focus only on qualitative data analysis.

**Figure 1** – Diagrammatic representation of Mixed Methods Research [13].



Pragmatism is the paradigm associated with mixed methods research [14]. This paradigm accepts that there can be one or more realities open to investigation, something that can only be seen through human experience based on beliefs and habits that are socially constructed [14].

A concurrent mixed methods design has been chosen to address this research topic as it combines the strengths and weaknesses of both quantitative and qualitative research. For example, qualitative data allows for detail and understanding but comes with a small sample size whereas, quantitative data observes trends utilising a large sample size.

Findings produced by each method can be used to validate the findings generated by the other increasing the depth and reliability of the study [15]. In addition, this is an efficient design where both types of data can be collected alongside each other which meets the demands of the student project [16]. An explanatory or exploratory sequential design would require additional time for completion and it would be necessary to select the most appropriate qualitative or quantitative data to move forward with the next stage, something that requires skill and experience not appropriate for student researchers [16].

Focus groups were used for this method of data collection. The focus group aimed to stimulate conversation within the group allowing the researcher to understand the meaning behind the key points with increased depth and detail [17]. In addition, a group setting enables a vast amount of data to be collected in a single setting and quickly which was important due to the time constraints of the student project [18]. Holding the focus group online allowed for data to be collected across a variety of locations in the UK, therefore, the researcher was not required to travel which was time efficient and reduced costs [19].

## Ethical Approval

Both qualitative and quantitative elements of this study were reviewed and approved by the University of Birmingham Research Ethics Committee (ethics code: MCR2223\_29). Consent was obtained from all of the participants who took part in the study (Appendix 1).

## Participant selection

Inclusion and exclusion criteria (Table 1). Participants in this study were former physiotherapy students who are now working as newly qualified Band 5 rotational or static physiotherapists in Worcestershire Acute NHS Trust and Nottingham University Hospitals NHS Trust. Participants were former physiotherapy students who enrolled on a BSc programme in 2019 or MSc students who enrolled in 2020, as this group would have had time at university before and during the pandemic so they were aware of the university experience before COVID-19. Unsuitable for this study were private physiotherapists as their working expectations differ from the NHS and individuals who studied outside of the UK as they may not have met the criteria required by the HCPC and followed the same course structure.

**Table 1** – Participant inclusion and exclusion criteria.

<b>Inclusion Criteria</b>	<b>Exclusion Criteria.</b>
<ul style="list-style-type: none"><li>- Newly qualified Band 5 physiotherapists working in the NHS in England.</li><li>- BSc students enrolling onto a course in September 2019</li><li>- MSc Pre-reg students enrolling onto a UK course Sept 2020</li><li>- Static and rotational posts to understand the preparedness across a variety of clinical areas.</li></ul>	<ul style="list-style-type: none"><li>- Band 5s that graduated before the pandemic.</li><li>- Private physiotherapists as the expectations are different to that in the NHS.</li><li>- Studied outside of the UK as they may not have met the criteria required by HCPC and followed the same course structure.</li><li>- Non-NHS jobs for example research posts, public health roles, or sports.</li></ul>

### Participant Recruitment

The recruitment advertisement was shared on social media including Instagram and Twitter and emails were also sent to gatekeepers of NHS trusts to pass onto suitable participants. A participant information sheet was sent to all potential participants and there was the opportunity to ask researchers any queries. Four former physiotherapy students provided consent to participate and were included in the study.

### Data collection

Once consent was obtained from participants, a suitable time was arranged for the participants and researcher to meet via Microsoft Teams to conduct the focus group. The researcher asked participants pre-set questions and provided prompts when required (Figure 2). The focus group consisted of an introduction to provide cognition, introductory questions to build rapport followed by specific questions where the majority of the data was gathered. Closing questions and final discussion provided information to participants on how to access the results of the study. With participants' consent, the focus groups were audio recorded, and a direct transcript was produced from Microsoft Teams. Body language and the group dynamic were observed by the researcher.

**Figure 2 – Focus Group Questions**

**Focus Group Questions:**

Recall the experience you had as a student in your pre-registration programme. What was the hardest part of adapting to a new style of learning during COVID?

How prepared did you feel as a student to attend your placements?

What were other challenges you experienced while studying due to COVID that may have affected your preparedness to get your first Band 5 job?

On a scale from zero to 5 (5 being the highest) how confident did you feel at your first job and why?

Can you recall an example in the beginning of your band 5 job where you felt that you lacked knowledge, confidence or experience due to the learning that happened in COVID?

What were your management strategies to overcome these challenges?

How did the trust, colleagues and managers support you in the transition period?

On a scale from zero to 5 (5 being the highest) how confident do you feel now in your job and why?

Is there anything else you think should be discussed in relation to the topic?

### Data Analysis

The online transcription produced from Microsoft Teams was second-checked to ensure it was verbatim and anonymised by the researcher. Braun and Clarke's thematic analysis was used to identify, analyse and report themes within the qualitative data [20]. Once the focus groups were transcribed, data was searched to find repeated patterns of meaning [20].

Analysis followed the 6 phases described by Braun and Clarke (Table 2). Phase 1 involved becoming familiar with the data, aided by second checking of the transcription. In phase 2 labels known as codes were assigned to the transcript (Appendix 2) allowing the data to be assessed in a meaningful way [20]. In phase 3 codes were created and organised into potential

themes to assist this process (Appendix 3). Themes were reviewed and refined in phase 4 [20]. The themes were examined and developed in phase 5 where each theme was organised and a brief description given of part of the data that they capture [20]. Phase 6 began when the themes were established enabling the data report to be written up methodically being sure to address all themes [20].

**Table 2** – 6 Phases of Thematic Analysis by Braun and Clarke 2006 [20].

<b>Phase</b>
1 – Familiarising with the data set
2 – Creation of codes
3 – Identification of themes
4 – Reviewing themes
5 – Defining and naming themes
6 – Producing the report

The researcher has reflected and bracketed their views on the subject to reduce the risk of preconceptions that may affect the research, this increases its quality.

## **Results**

The sample included 4 newly qualified physiotherapists working across 2 different trusts who had completed a BSc in physiotherapy. Table 3 displays the participants' demographic. The focus group lasted approximately 40 minutes.



**Table 3 – Participant Demographic**

<b>Participant</b>	<b>Gender</b>	<b>Degree Programme</b>	<b>University Attended</b>	<b>Graduation date</b>	<b>Rotations Completed</b>
1	F	BSc	University of Liverpool	Summer 22	- Respiratory Medicine - Stroke
2	F	BSc	University of Leicester	Summer 22	- Trauma and Orthopaedics (T&O) - Respiratory Medicine
3	F	BSc	University of Cumbria	Summer 22	- Oncology and Haematology - T&O
4	F	BSc	Birmingham	Summer 22	- Neurosciences - Critical care - Elective orthopaedics - Paediatric respiratory

From the analysed transcript 4 themes emerged: Challenges of organisational dynamics and communication, impact on the transition to a newly qualified role, embracing novice status and the future of clinical placements.

### **Challenges of organisational dynamics and communication**

A major theme identified was the challenges of organisational dynamics and communication during the participants' degrees. These challenges were related both to placement and study time.

*Subtheme: Emotions caused by placement disruption.*

Participants reported there were placement shortages as a result of COVID-19 and had difficulties securing suitable placements which caused frustration and worry. Students' personal lives were impacted to meet placement requirements to ensure hours were met. One

student had to complete their placement during an official break time. In addition, government restrictions at the time caused fear of isolation over the Christmas break. “I was in the situation where if I got COVID-19 now I'm stuck in Liverpool on my own, over Christmas” (P1). One participant found it difficult to settle and create goals due to COVID-19 disruption.

*Subtheme: Dissatisfaction and unfulfillment with practical learning.*

Due to restrictions, practical learning time and group size were reduced for all participants which they felt made it impossible to cover all areas of practice. For one participant their manual handling was not delivered in person causing them to feel unprepared for their first placement. Many felt frustrated with the lack of hands-on time believing that practicals were ineffective. “We weren't really supposed to touch each other, so how are we supposed to properly learn that way?”(P3).

*Subtheme: Lack of engagement with online learning.*

An obvious challenge for all participants was adapting to the new style of online learning that came with the pandemic. With this came difficulty to self-motivate. “A lot of the time I found I was stuck in my bed, in my pyjamas, with my camera turned off, my microphone turned off, not really engaging” (P1). In addition, there was a reduced ability to focus and interaction with peers was limited. One participant felt it inappropriate that certain aspects of the course were delivered online indicating that health and safety requirements were compromised. Open book examinations caused one participant to question if their academic rigor had been impacted as they felt their knowledge wasn't as thorough as it could have been without COVID-19.

*Subtheme: Limited communication due to restrictive circumstances.*

Imposed visitor restrictions meant that participants were unable to practise their communication skills whilst on student placement, acknowledging that this is an important aspect of the role. They felt that developing this skill sufficiently was prevented due to restrictions. One participant felt that she was put at a disadvantage, now feeling panicked as a newly qualified physiotherapist. “Sometimes I just sit there and go, I don't know the answer. I'm sitting here panicking like I don't know what you want from me.” (P2). They felt that this may have been improved with additional educator support. Another participant felt confident communicating. However, they felt this skill could be more developed if they were able to practise as a student “I feel like I'm fine at doing it, but I could be probably better if I'd had more experience as a student” (P1).

### **Impact on the transition to a newly qualified role**

*Subtheme: Belief transition to a qualified role not affected.*

All of the participants believed that studying during the COVID-19 pandemic did not have any impact on them as they transitioned to their qualified roles. They believed that studying with or without COVID-19 the outcome would have been the same. “I can think of loads of scenarios where I have needed help and advice or whatever, but I don't think that this is down to COVID-19” (P2). One participant felt unable to identify if changes to the learning style have had an impact on their current role as they did not know any differently. Despite this, they confidently expressed that they felt ready to start working as a qualified physiotherapist, and enjoyed the whole university experience even with COVID-19. Another participant agreed, acknowledging academic challenges but felt that this has had no bearing on their current practice.

*Subtheme: Amount of clinical experience not impacted.*

All participants met their required placement hours across clinical settings and they felt fortunate to obtain clinical placements. One participant was grateful to obtain hours despite having to compromise outside of term time. They felt that if their placements had been non-clinical, they may have been put at a disadvantage as they transitioned to their qualified role. “I think if I had been on one of those where you're doing something completely non-clinical, maybe my clinical skills wouldn't have been as good because of that” (P2). They felt that non-clinical placements were of little value, later referring to them as “...non-clinical rubbish placements” (P2). Participants reported autonomy during their first rotations as they had solid placement experience which they felt prepared them well.

*Subtheme: Enhanced learning through increased clinical exposure.*

Participants felt that being on placement during COVID-19 had increased their exposure which they saw as a positive. They identified their transformation through difficult experiences whilst on student placement which they perceived as beneficial, improving confidence as they started their job role. One participant who was scheduled to be on elective surgery was transferred to the COVID-19 wards and stated, “It gave me a lot of experience in different areas that I wouldn't have got if I was just in elective, so I guess there's pros and cons to all of it” (P2). This suggests a belief of enhanced learning through increased exposure.

## **Embracing novice status**

*Subtheme: Acceptance of being a novice.*

All participants acknowledged the inherent lack of confidence that comes with being a novice when transitioning to their qualified role with the belief that their confidence and autonomy would increase with experience. They attributed their lack of self-assurance not to the pandemic, but rather to the usual learning curve associated with starting as a new Band 5 physiotherapist. One participant stated, “Yeah, just not having enough self-confidence, but I think that's what comes with time as a Band 5, not necessarily lack of experience as a student” (P1).

*Subtheme: Natural concerns that come with a new job.*

All of the participants expressed normal worries about starting a new job role. Despite feeling competent to start, participants felt nervous as they did not know what to expect. “I was probably more nervous about that side of it rather than my actual capabilities, .... I was probably more worried about, starting a job rather than the actual job itself” (P3). Others were in agreement, concerned about the unknown. Two of the participants had moved away from their university town which made them fearful of a reduced social support network. One of the participants speculated what colleagues and managers may or may have not been like before starting work which caused anxiety.

## **The future of clinical placements**

*Subtheme: Acceptance of non-clinical placements.*

Despite having a good variety of clinical placements themselves, participants feared for the next Band 5 cohort and current students as this group had difficulty securing clinical placements due to the shortages caused by COVID-19. This did not link directly to the focus

group questions, however, participants felt this an important point that needed to be raised. From interacting with their new Band 5 colleagues, participants got the impression that non-clinical placements are now accepted. As discussed above, the participants felt that these types of placements provide very little value and acknowledged the struggle and difficulties for the next cohort. Leadership style placements were thought to be inappropriate for students being more suited once qualified with relevant experience. Participants agreed that the lack of clinical experience had caused detrimental effects on current students and new Band 5s. “Some students that we've had as well, definitely haven't got those personal skills because placements have taken a shift to non-clinical and they're getting less exposure and less patient mileage” (P1).

*Subtheme: Reduced competencies in the next cohort slowing down working.*

With current placements taking a shift to non-clinical settings, participants believe that this has had an indirect impact on their ability to manage the demands of the role as the next cohort has reduced confidence and autonomy. One participant felt pressure from senior colleagues as they have been struggling to clear their caseload because they have had to take time out to support junior staff. The participants themselves felt unable to complete their roles to their high standards and acknowledged the impact that this can have on patients. “...you will then have to take your time out to support them as opposed to treat patients” (P4).

## **Discussion**

This study found that newly qualified Band 5 physiotherapists did not perceive that studying during the COVID-19 pandemic had any impact on them as they transitioned to their qualified role. They associate this with a good variety of clinical experiences that they had as students which they felt very fortunate to secure. They felt that being on placement during COVID-19 increased their exposure which they saw as a positive. As they started, they were aware and accepting of their novice status as newly qualified practitioners and experienced the normal worries that come with a new job. Despite this, they experienced a significant amount of frustration and worry as they were presented with challenges of organisational dynamics and communication as they studied during the pandemic. This is a common theme that is shared within the wider literature. Chesterton in 2022 reported that 79% of physiotherapy students studying during the COVID-19 pandemic felt that studying online meant they were disadvantaged which had an adverse impact on their subject knowledge, something that was also shared by the participants of this study [10]. Uncertainty surrounding placement and isolation were challenges commonly felt by participants which correlates to students in a study by Soundy et al. in 2021 investigating the mental state of physiotherapy students during the pandemic [5]. This increases the reliability of this research. However, participants did not believe there were any positives associated with online learning such as convenience and the ability to learn at their own pace as reported by the CSP in 2020 [11].

Despite not being directly affected by the pandemic themselves, having now transitioned to their qualified role as a Band 5 physiotherapist in the NHS, participants feel there is an indirect impact. They believe the next cohort of Band 5s are lacking confidence and autonomy due to reduced clinical exposure whilst at university. They feel that this is having a secondary impact on them by slowing their work down as they are having to take time to support and mentor

their junior colleagues. Participants are attributing this to the shortages of placements caused by the COVID-19 pandemic forcing some placements to shift from clinical to non-clinical. Reasons for placement shortages include restrictions with face-to-face consultations, redeployment of physiotherapists to assist with the pandemic, insufficient PPE and worries that students may unknowingly be spreading the virus [21]. Since 2015, changes to education funding have meant that the number of physiotherapy student places has increased by 34% [22]. This together with the NHS Long Term Plan 2019 [23] which aims to increase the number of healthcare professional students, means it is of paramount importance that placement capacity increases.

In 2020 the CSP called attention to resuming student placements that had been stopped as a result of COVID-19 to ensure that there was no delay when it came to students' graduations [24]. This is important to prevent shortages of qualified physiotherapists [24]. To meet this challenge the CSP is urging their members to change their thought process when it comes to learning opportunities during practice placements. This includes non-traditional settings such as remote work, telehealth, project work, research or leadership [25], something participants felt provided little value, putting their junior colleagues entering the acute setting at a disadvantage as they have had very little clinical exposure and patient mileage. From a frontline article published in August 2020 titled 'Thinking differently' [25], the CSP states that "there is no such thing as a core placement" and emphasises that placements do not need to be patient facing with non-traditional placements still contributing to the required amount of placement hours. Justification for this is the expansion of physiotherapy services with physiotherapists working in areas beyond the acute setting such as the community, private, rehabilitation, leadership and research posts looking towards the future of the profession [25]. However, participants from the focus group felt leadership placements inappropriate for this level of



study being of the opinion that more emphasis should be given to core clinical skills with leadership placements being more suited to qualified physiotherapists with years of experience. Despite this, the CSP paints non-clinical placements in a very positive light reporting the new initiative to be a "hit with students, patients and educational institutions" [25]. An article published in 2019 that looked at the suitability of non-clinical placements for medical students, reported that some students found these types of placements too distant from the role of a doctor and felt clinical placements would be more appropriate [26]. These views were shared with student paramedics who felt that non-clinical placements may have an impact on their perception of the role of a paramedic with reduced communication skills, caseload management and being able to deal with fatalities as an integral part of their role [27].

Placement shortages for allied health professionals (AHPs) have also been acknowledged by HEE. In 2020, HEE put forward the Clinical Placements Expansion Programme (CPEP), a 10-million-pound project providing funding for AHPs and nursing placements [28]. This encouraged bids from placement providers to support their clinical placements [28]. This programme aimed to bring back placements following the pandemic to boost the workforce [28]. As part of this, a virtual workshop was held with AHP students to gather their opinions on the future of clinical placements [28]. They felt that there is a need to expand to the private, voluntary and independent sectors and look towards the health and social care system as a placement source [28]. The CPEP was a success at Great Ormond Street Hospital where the number of healthcare students placed increased by 110 students from 2020/2021 to 2021/2022 [29]. Except for this study, there has been very little research to understand the effectiveness of this programme.

It is without a doubt that non-clinical placements provide transferable skills to clinical practice. However, further research is warranted to determine how having non-clinical placements as a student impacts the preparedness and competence when starting as a Band 5 physiotherapist. This will allow universities and employers to put in place additional learning opportunities to make sure that when transitioning to a qualified role students are fully competent and confident.

### Limitations

The recruitment process was challenging and a poor response to initial invitations resulted in only 4 participants. The study had potential gender bias as all participants were female. However, 74% of the physiotherapy workforce is female so is partially representative [30]. The participants were recruited from two NHS trusts that are nearby in the UK which may impact the transferability of the results, however, the participants studied at four different universities across the UK. Unfortunately, due to student license limitations, the focus group was unable to be recorded which prevented an in-depth analysis of body language. Participants may have had more interest in the subject matter discussed in the focus groups as they volunteered to be in the study. This may mean they are more self-motivated, intellectual individuals in comparison to other students on their course. Consequently, they may have had a good university experience and been put forward for a good variety of clinical placements. All participants took part in the online focus group whilst at work, this may have made them more prone to reflecting positively as they may have been nervous to say anything negative whilst at work. In addition, the primary researcher was a student, therefore, inexperienced and did not delve deep enough when questioning the participants. The results obtained from this study could consequently be seen as the best possible picture of former physiotherapy students' views on the changes to their education during the COVID-19 pandemic in preparation for their role as a Band 5.

## **Conclusion**

This research shows that, despite encountering challenges whilst studying throughout the pandemic, former physiotherapy students did not perceive this to have had a negative impact on them as they transitioned into their Band 5 roles as newly qualified practitioners. They believe this is because they were able to complete all of their placements in clinical settings. However, they have felt an increased strain on their practice as the next cohort of Band 5s have started work. They see their junior colleagues to be less competent and require additional support, which is slowing their work down. They attribute this to the lack of clinical experience that their junior colleagues had whilst at university due to placement shortages during the pandemic.

Even with increased funding, it is likely that non-clinical placements will increase in the future as the number of physiotherapy students continues to rise. It is, therefore, important for further research to be carried out to understand the specific skills, for example, bedside manner, that are difficult for students to acquire from non-clinical placements. This would allow universities and employers to provide adequate support and mentoring to ensure competency as they graduate and transition into their qualified roles. This is vital to maintain academic and professional standards, and ensure a high quality of patient care.

## **List of abbreviations**

BSc – Bachelor of Science

CSP – Chartered Society of Physiotherapy

CPEP – Clinical Placement Expansion Programme

HCPC – Health Care Professionals Council

HEE – Health Education England

MSc – Master of Science

NHS – National Health Service

PPE – Personal Protective Equipment

T&O – Trauma and Orthopaedics

WHO – World Health Organisation

**Nothing to declare.**

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