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An Exploration of the Impact of the COVID-19 Pandemic on Allied Health Students' Practice Placement Experiences

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Abstract

The COVID-19 pandemic was an unexpected event, significantly impacting global populations. Due to its sudden occurrence, it affected pillars of world stability, namely, healthcare. Not only did it stretch healthcare systems beyond their capacity, but it also disrupted daily protocols and activities. Hence, adaptations at a university and institutional level have been implemented to tackle the pandemic, impacting allied health students in various ways. Nonetheless, guidance was provided to allow clinical placements to continue. However, these changes have potentially limited students in their learning, posing the question of clinical sufficiency and competency. This qualitative study aims to understand the specific changes to National Health Service (NHS) trusts and how students adapted to fulfil their module criteria and learning outcomes. A convenience sample of physiotherapy and occupational therapy students were recruited; from the recruitment, 18 interviews were then conducted. Transcriptions, coding, and thematic analysis identified four main themes of learning opportunities, organisational changes, adaptations, and mental wellbeing, thus providing clarity on how students successfully completed and met their placement learning outcomes despite organisational changes. However, as mental, and physical wellbeing were also affected, by shedding light on which changes were helpful and which needed modification, future research can be conducted to gain a more holistic understanding of the needs of students and other effective coping mechanisms, in order to provide a more balanced placement experience during uncertain times.

Keywords: COVID-19, occupational therapy, physiotherapy, placement, student

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Background

The COVID-19 pandemic was an unexpected event, significantly impacting global populations (<u>Chakraborty & Maity, 2020</u>) and affecting the major pillars of world stability, for example economic and social infrastructures especially healthcare (<u>Tandon, 2020</u>). The World Health Organization (WHO) has stated that during this pandemic, global health systems were put under significant pressure and stretched beyond their limits (<u>WHO, 2020</u>).

The effects of the pandemic in England disrupted the daily protocols and activities of the National Health System (NHS), resulting in new stressors and obstacles. In response, it adapted (<u>Marlow et al., 2020</u>; <u>McCabe et al., 2020</u>) by introducing mandatory full personal protective equipment (PPE), rigorous risk assessments and by coping with last-minute student clinical placement cancellations (<u>British Medical Association [BMA], 2020b</u>). The government and Health Education England (HEE) provided modified guidelines to enable healthcare students to resume clinical placements during this period (<u>GOV.UK</u>, 2020). For physiotherapy, the guidelines required students to complete 800 clinical hours instead of the usual 1000, while also allowing for paid placements (<u>Twogood et al., 2020</u>). As a result, these sudden changes inevitably affected healthcare students. As this 'new norm' is set to continue, research around its impact on students in healthcare is crucial as it provides valuable information for both university and government agencies.

Clinical placements mainly aim to provide students with practical experience in various healthcare settings and specialities, exposing them to their future responsibilities and facilitating their development as healthcare professionals (General Medical Council [GMC], 2011). These 'work readiness' skills are important as they have overtaken academic success in graduate selection criteria (Walker et al., 2013); students are expected to be safe and autonomous whilst also adapting to an ever-changing healthcare system (Cross, 2013). However, due to the pandemic, changes made to the operation of the NHS inevitably affected clinical placements, where cancellations and lack of guidance from NHS trusts and universities have caused anxiety amongst students, resulting in fear of insufficient clinical experience (Macdougall et al., 2020; Elsway et al., 2020). This clinical insufficiency could impact a student's work readiness, resulting in inaccuracy, ambiguity, and avoidable errors (Norman et al., 2007), ultimately affecting patient care.

Nevertheless, the pandemic did provide opportunities for healthcare students to appreciate the dynamic nature of knowledge and its importance in dealing with threats to human health (<u>Lucey & Johnston</u>, <u>2020</u>). However, Cleland et al. (<u>2020</u>) reported that campus-based teaching had been significantly affected due to COVID-19 restrictions, where universities had much difficulty prioritising which curricular was essential and which could be taught later. Tolsgaard et al. (<u>2020</u>) supports these claims, further suggesting that the pandemic required education providers to triage their resources, identify essential topics, and adapt teaching methods to meet the demands of the current environment. Traditional assessments needed to be modified too, ensuring a process that was both fair (<u>Ooi & Ooi, 2020</u>) and reflective of the reduced clinical placements experienced by students.

Due to the aforementioned obstacles, various healthcare courses had to shift to online learning as face-toface clinical teaching and workplace experience were high risk (<u>Cleland et al., 2020</u>). Though simulated learning online can help achieve learning objectives, to be effective clinicians, students need to develop practical competency and professionalism, which is acquired through the experience of complex workplace situations (<u>Doran et al., 2006</u>). Hence, new innovative changes were made to ensure the continuity of practical education; Salter et al. (<u>2020</u>) outlined how practice placement providers for physiotherapy (PT) and occupational therapy (OT) in Australia implemented new virtual placements, while also utilising rural, mental health, homeless, primary school, and kindergarten environments to provide appropriate clinical competencies. Furthermore, online, and project-based physiotherapy placements have also been trialled, allowing students to develop soft skills like communication and professionalism (<u>Lawton et al., 2021</u>). In the United Kingdom (UK), both the government and the NHS provided guidelines for the continuation of face-to-face placements, mainly focusing on infection control policies and social distancing. In terms of clinical teaching, medical students are continued with rotational bedside teaching, albeit with reduced capacity (<u>Caplan et al., 2020</u>), while nursing students were offered extended placements to meet their required clinical hours as required by the UK Nursing and Midwifery Council (Swift et al., 2020).

Salter et al. (2020) reported that students who have undergone these new forms of placement not only met their assessment criteria, but also managed to support organisations and focus on self-care. Harris et al. (2020) supports this claim, reporting that most students agreed that virtual placements facilitated their technological competencies and made communication with faculty staff easier; despite infection control measures, students still felt well supported and satisfied with their placement experience (Marchant, 2021). However, Ulenaers et al. (2021) reported that although nursing students felt that they were clinically self-efficacious, more support was needed regarding clear learning objectives and follow-up contact with clinical educators. These insights from the literature suggest that some clinical learning adaptations have been more successful than others, however, variation in learning outcomes among courses must be considered too. Finally, current literature regarding hospital-based adaptations has focused on medical and nursing students, suggesting that its efficacy on allied health students and their learning outcomes are still inconclusive.

Current literature suggests that the NHS, students, and universities have had to adapt to the new educational environment caused by COVID-19. However, most of the research has been limited to certain healthcare professions and has only focused on the efficacy of what organisations have done; adaptations by students and their methods of study are still largely unexplored. As healthcare contains various diverse and unique professions, this study not only focused on the changes that trusts made due to COVID-19 but also the adaptations of PT and OT students.

Research Question and Objectives

The main research question was "What was the impact of the COVID-19 pandemic on healthcare students' practice placement experiences?". Subsequently, the two main objectives were:

- (1) To explore the impact of how specific changes to trusts affected students.
- (2) To explore how students met their placement learning outcomes and module assessment criteria during the COVID-19 pandemic.

Methods

Study Design

Semi-structured interviews were used to explore this qualitative research question. As one-to-one online interviews allowed for more subjective insights into personal experiences (DiCicco-Bloom & Crabtree, 2006), this was considered a suitable research methodology, which allowed for flexible and open-ended discussions (DeJonckheere & Vaughn, 2019) during data collection. Interview questions were then drafted to systematically address aspects of a clinical placement experience (Jamshed, 2014) (Appendix A) following a full review of the literature. These questions were further developed by the research team to reduce ambiguity, improve question clarity, and aid interviewer understanding and confidence (Minichiello et al., 2008). To enhance the applicability of these questions (Creswell, 2007), an internal pilot study involving 2 PT students was conducted prior to the actual interviews. Their feedback was then used to refine the questions.

Participants

Convenience sampling was deemed the most appropriate technique as participants were selected based on their ease of accessibility and willingness to participate (<u>Robinson, 2014</u>). The sample population - PT and OT students from one university in London with clinical placement experiences prior to and during the pandemic were interviewed and data collected until saturation was achieved (<u>Vasileiou et al., 2018</u>). Participants were recruited via personal emails and an advertisement on the university's student forum,

specifically targeting PT and OT students in their final year of university. The selection criteria required each participant to have completed clinical placements before and during the COVID-19 pandemic. Furthermore, participants must have successfully met their module assessment criteria and passed their respective placement(s). To maintain ethical standards and respect the individual decisions of each participant, the data of two participants were removed and one other participant formally withdrew from the study.

Study Procedure

Ethical approval was sought and gained from the HEI Research & Ethics Committee where the study was carried out. The online interviews were conducted by one of the five research team members (lasting between 20 to 40 minutes) and video-recorded through Microsoft Teams on the researcher's laptop. All volunteers were informed of the use of the video recording feature through the Participant Information Sheet. Consent was obtained through a digitally signed consent form, with further verbal confirmation prior to initiating the interview. Both documents were sent to participants ahead of time through email and checked before the interview. All data was stored in password-encrypted devices and was accessible exclusively to the researchers.

Thematic Analysis

Interviews were manually transcribed verbatim based on the recordings. Not only did this ensure that data was accurate to participant accounts (<u>Noble & Smith, 2015</u>), but it also aided understanding of each participant's placement experience, ultimately improving the reliability, rationality, and integrity of the study (<u>Stuckey, 2014</u>). Rigour and accuracy were further solidified through cross-checking of random transcriptions from each group member, ensuring a homogenous interview process.

Following cross-checks, transcriptions were coded using the 'rainbow spreadsheet' method (<u>Appendix</u> <u>B</u>), where colours instead of words were used to note recurrent responses (<u>Fu</u>, 2019), providing a userfriendly platform for data collection and visualisation. Each researcher coded their work by highlighting notable quotes from their transcriptions; subsequently, indexing key points by assigning numerical codes and categorising them into themes congruent with our interview questions. To improve data reliability, decrease the bias of different coders (<u>Asan & Montague</u>, 2014) and ensure maximum information extraction, one set of codes from each group member was then cross-checked again. From the collated codes, significant themes were generated based on the frequencies of specific responses. These themes were organised into main and sub-themes based on the team's coding review. Braun and Clarke's (2006) thematic map was constructed to aid with the linking and visualization of themes.

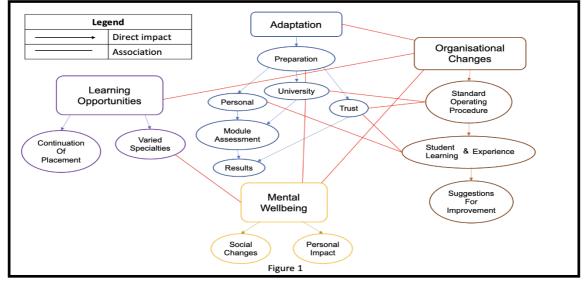
Findings

Eighteen students (16 PT and 2 OT) participated in the study. Of the 18, 12 were female, and six were male; two were on the PT pre-registration MSc programme, while the rest were either on the BSc PT or OT programmes. As previously mentioned, three participants had to be excluded. Hence, of the 15 participants included, one participant had solely virtual placements, four had solely face-to-face placements, eight had a mixture of both face-to-face and virtual placements, and two participated in a new hybrid model of placement (60% clinical, 40% self-directed). At the time of the study, each participant had undergone between two to five clinical placements and were exposed to various clinical specialties, which facilitated their experience as future healthcare professionals.

Four main themes emerged from the results: 1) Learning Opportunities, 2) Organisational Changes, 3) Adaptations and 4) Mental Wellbeing. The thematic map (Figure 1) demonstrates the links between themes; illustrating that despite module and Trust changes, adaptations by students and staff members made up for the reduced face to face contact. However, students also identified the need for educators to acknowledge their constraints; being more understanding and realistic with their expectations.

Figure 1:

Thematic map



Learning Opportunities

This theme outlines the various clinical specialties that students experienced during the pandemic, supporting the literature review, and indicating that the university continued to provide a wide variety of placement opportunities (Table 1) throughout the pandemic.

Table 1:

Type and frequency of specialities experienced by participants

Speciality	Frequency	Percentage (%)
Accident and Emergency	1	2.04
Acute Medicine	4	8.16
Adult Social Care	1	2.04
Care of the Elderly	4	8.16
Community	7	14.29
Diabetes and Endocrinology	1	2.04
ITU	6	12.24
Musculoskeletal Outpatient (face-to-face)	5	10.20
Musculoskeletal Outpatient (virtual)	9	18.37
Neurology	4	8.16

An Exploration of the Impact of the COVID-19 Pandemic on Allied Health Students' Practice Placement Experiences 42

Oncology	1	2.04
Paediatrics	1	2.04
Respiratory	4	8.16
Trauma and Orthopaedics	1	2.04
Total	49	100

The two sub-themes of "Continuation of Placement" and "Varied Specialities" highlighted that high-risk specialties (20.4% of placements exposed students to potentially treating covid positive patients on ITU and respiratory wards) were offered despite the introduction of virtual placements. Nevertheless, participants appreciated the variety of placements and felt that their clinical reasoning and assessment skills improved despite hospital restrictions, reporting that they had new experiences, further attributing its applicability to their future careers.

'I was at two sites mainly, one was actually like a big hospital in London, and the other was more like a GP type of surgery thing, and it had like various departments within it as well.' (**Interviewee 5**)

'In terms of like to assess and treat the patient...I feel like I have the knowledge to...ability to carry out a full assessment.'

'Because the experience...is something that I have not experienced in other placements, and it is very clinical based...very useful in terms of my future career.' (Interviewee 8)

Organisational Changes

This theme outlines the adaptations that hospitals made, leading to the sub theme of "Standard Operating Procedures" which demonstrated how trusts that provided clinical placements for both professions had to adapt their daily standard operating procedures to run congruent with current NHS guidelines (<u>BMA</u>, <u>2020a</u>). The two most significant changes that participants experienced were the increased stringency with infection control and PPE.

'Definitely more so like infection control policies... I got taught how to don and doff all the gowns and the respirators and the devices.' (Interviewee 1)

As a result of these infection control policies, students had limited clinical learning opportunities which impacted on their overall placement experience. Most participants reported being more hands-on than theory-based learners. However, by enforcing social distancing and limiting personnel in meetings, students could not participate in in-service speciality training or have sufficient clinical contact with patients; being reduced to either an observational role or left to do self-directed learning.

'Being a student...restricted the kinds of things you can do...if a patient is suspected of COVID or COVID positive...something I couldn't do and wasn't allowed to do' (Interviewee 6)

'I mainly saw patients on that day when I was on the COVID ward, but even so I was like observing from a distance and not really interacting much with the patient' (Interviewee 5)

Some trusts adopted new hybrid and virtual models for placement (Table 2), where students were either fully online or only on-site during certain days of the week; the rest of that time was given to them to continue with their own learning.

Table 2:

Type and frequencies of placement models experienced by students

Placement model	Frequency (number of students)	Percentage
Face to Face	5	31.25%
Hybrid (Face to Face + Virtual)	2	12.50%
Virtual	9	56.25%
Grand Total	16	100%

As this was a new model, students reported that educators were still uncertain of its day-to-day application. This resulted in unclear expectations, conflicting opinions during grading and ultimately the feeling of helplessness as participants' perception of regression in practical skills led to concern over their future clinical ability.

'We were the first two students to use the model that the hospital decided to use, and they weren't exactly too sure on how they were running it themselves.' (Interviewee 7)

'It was such a kind of one-eighty kind of virtual placement...you definitely can get things out of the virtual placement, I'm just not sure that you get that same amount of real placement, sort of face-to-face placement in a real clinic or a hospital.' (Interviewee 14)

Adaptations

"Adaptations" was listed as a main theme due to the frequent changes made to government and healthcare guidelines. Despite these changes, educators and university staff utilised various approaches to student assessments, allowing for realism and achievability. Most participants adapted their daily schedules and academic approaches to ensure they achieved their learning outcomes on placement. To combat the lack of clinical contact time with patients, several educators supplemented their students with case studies. Subsequently, students had to clinically reason their selected treatment and management plan while using their educators as 'patients'.

'They (educators) would come with like a case study or like mini scenario and I would practice on them'

(Interviewee 5)

"Communicating with my educator, like discussing and agreeing when can I take a half day...using that half day to do the reflections and self-study" (Interviewee 6)

For the sub-theme of "Preparation", when analysing methods pre and on-placement before and during the pandemic, changes were not drastic. Regardless of their speciality and course, most participants still contacted their educators beforehand to initiate proactive communication and revise the content on their placement area. The only notable difference was the increased number of reflections and self-directed reading that students did during their placement period as this was their supporting evidence when being

assessed. However, despite these adaptations some students felt that the new criteria worked against them, reporting much difficulty being consistent.

'Well, I passed, so I think I managed to meet them, but I think it was more difficult due to COVID, and there wasn't much flexibility around it.' (Interviewee 10)

'You can't like demonstrate your learning as easy as you can on placement...we had to get a bit creative...we had to demonstrate our learning in a different way which was really quite difficult sometimes.'

 $(Interviewee \ 3)$

Nonetheless, both OT and PT students felt that their new placement environments improved their clinical reasoning, communication, and interpersonal skills, while also having a more significant appreciation for guidelines and infection control measures. Notably, those who mentioned these new lessons also received satisfactory grades and gave the placement a high rating.

'I was really lucky that my educator organised some great things...that was so interesting...there were just loads of opportunities to learn within the area, and I really appreciated the breadth of experience.'

(Interviewee 14)

Mental Wellbeing

With this 'new norm' of placement, "Mental Wellbeing" was a notable discussion point, where it outlines how the challenges faced by students during placement impacted their mental health. Two sub-themes of 'Personal Impact' and 'Social Changes' emerged. Personally, participants were fearful of contracting COVID-19 and bringing it home, while also worrying about how the environment would impact their ability to meet module criteria, clinical skill adequacy and readiness for working life. Two students witnessed the death of patients from COVID-19, which resulted in feelings of sadness, frustration, and helplessness, and manifested in increased anxiety levels, paranoia regarding infection control and physical and psychological exhaustion across participants.

'So like special tests for example. It wasn't something I was good at beforehand, but now I feel like I am going to really struggle when either in my next placement or when I graduate because I haven't had that opportunity to do those type of things.' (Interviewee 15)

'Periods where I've given up, for instance or halfway given up because I was just absolutely shattered' (Interviewee 2)

Yet, despite the negative emotions, participants appreciated the comfort and support provided by their peers. This camaraderie was a major factor in helping them complete their placement. This also allowed them to put the whole experience of placement in perspective, ultimately feeling grateful as clinical development could continue in a safe environment and completion of the course also drew closer.

'Among the not so senior physios...there was a sense of so-called camaraderie...everyone looking out for each other.' (Interviewee 14)

'Yeah I've been quite lucky with my placements. I've been able to do the main core bits and some extra stuff. I'm grateful.' (Interviewee 1)

Discussion

This study met our objectives by illustrating how specific changes to clinical placements have impacted the academic and personal lives of students. Though it did not provide definitive answers regarding the success of these changes, it did allow for the analysis of student responses, which could be used as feedback, acting as cues for readers and leading to more effective future literature searches and strategy planning (Hattie and Timperley, 2007). Thus, this could serve as evidence for the continuity or modifications of specific changes. To further strengthen the validity and credibility of our study, analysis of our methods and findings were conducted through investigator triangulation and reflexivity, enabling the explanation and exploration of human behaviour in a balanced manner (Bashir et al., 2008).

Organisational Changes

The most frequent organisational changes implemented were *Infection control measures* and *PPE*. These forms of good clinical practice are congruent with guidelines by the NHS (2020b), suggesting that trusts did prioritize staff and patient safety. However, an outlier was identified, where a single Trust was perceived to be less stringent with its infection control measures as compared to others. Laxity and inconsistency in enforcement is concerning as it could have led to increased COVID-19 infections. Furthermore, students could be impacted negatively as they can become overly concerned with infection control practices for fear of failing their clinical placement and being seen in a negative light by staff members (<u>Ward, 2010</u>). This suggestion was supported in our findings, where some students felt 'paranoid'. Therefore, although trusts have taken the impact of COVID-19 into heavy consideration, further refinements in organisational changes can be made.

Another area of change was the varied placement models that students experienced. Three main models were used: face-to-face, virtual and hybrid. Though this study did not aim to conclude if certain models were more successful than others, from the data, 10 of the 15 interviewees mentioned that they preferred a hands-on approach, suggesting that a face-to-face model would suit them best. However, despite not all having that experience, 12 of the 15 interviewees said they achieved a favourable grade. This qualitative data is a testament to students' tenacity and perseverance, despite the uncertainty of working and studying through a pandemic.

For some, the lack of face-to face contact with patients was another concern. Since practice placements aim to provide an authentic clinical environment that identifies areas for improvement and facilitates the development of clinical reasoning (Price, 2019), drastic changes and stressors could result in students doubting their knowledge and skills (Admi et al., 2018). This theory was supported when participants felt 'restricted' in their practice experience, ultimately affecting their confidence as future physiotherapists and occupational therapists. Yet amongst the doubt, fear and uncertainty, the doctrine of *c*'est la vie (such is life) was adopted. Not only did interviewees accept their human fallibility and the 'new norm' of varied clinical teaching, but they also rose to these changes, adapting their daily schedules and academic methods (objective 2); ultimately succeeding in their placement. Using reflexivity, as researchers, we too had to consider the significant effects of this 'new norm' and the subsequent changes by both students and organisations; stemming from the possibility that humanity was not prepared for this pandemic (Harpin, 2020).

Learning Opportunities

When analysing learning opportunities, it was clear that despite restrictions and lockdown measures implemented by the UK Government, varied placement opportunities were still offered throughout the academic year. As mentioned in Table 1, high-risk specialities were still provided despite the threat of the pandemic. This finding supports the initiative by HEE, where students, within their professional capacities, were mobilised to aid the NHS during the pandemic (NHS, <u>2020a</u>) despite the risk classification of specialities. This meant that students could meet the amended 800 hours of clinical experience as required by the Health and Care Professions Council (HCPC) and university module criteria. Furthermore, the findings suggested that the varied placements also ensured continued clinical

learning (<u>Papapanou et al., 2021</u>) and development; preparing students for their future careers as healthcare professionals. Conversely, Ulenaers et al. (2021) reported that students regretted having fewer learning opportunities, where technical skills could not be developed due to the lack of time and supervision from their educators. Though this lack of supervision was not identified in our findings, it still emphasises the importance of the quality of placements as being equally crucial to the experience as the variety of specialities offered; ultimately, clinical proficiency is at risk.

Adaptations

As previously mentioned, students had to adapt their usual methods of study during this period. *Proactive communication* and *personal revision of academic material* were the most frequent methods utilised by students during placement. Though not a drastic change, these methods were instead heightened and emphasized. To supplement their marking and teaching, some educators used a theory-based approach while others provided case studies and acted as patients. With case-based learning as the preferred method, a systematic review by McLean (2016) supports its use, suggesting that it promotes deep learning, where students move beyond the identification of correct answers and focus instead on critical thinking; potentially explaining why students who preferred this method found it easier to meet their learning outcomes.

By considering the professional student-educator relationship (Cooper et al., 2015) and the adaptations made by both, looking deeper, the variety in teaching and marking could be attributed to two main factors - communication and learning style. These factors are not mutually exclusive, instead, they work in tandem. Students are unique - coming from diverse backgrounds that have shaped both character and individuality; meaning that each student would have a certain learning style that suits them best (Romanelli et al., 2009). As this contributes to academic success (Cook & Smith, 2006), it is crucial that both educator and student are aware of it. Most participants mentioned that they preferred a hands-on approach over theoretical, where clinical placements provided an opportunity to 'show-off' what they know. This finding is homogenous with other studies, where PT students (İlçin et al., 2018) and OT students (Brown et al., 2008) who preferred this learning style had a statistically higher academic performance (P < 0.0001 for PT) (P = 0.00 for OT). Accordingly, if students are aware of their preferred learning style, the facilitation of open communication could further minimise their academic struggles as their educators would then be able to change their supervision style to better support them. Froneman et al (2016) identified one-on-one communication as an effective method to improve the student-educator relationship. Therefore, not only must students be aware of their learning style, but they also need to communicate it openly with their educator. This provides mutual understanding and prevents the breakdown of communication by avoiding 'mismatched perceptions' (Adler et al., 2012).

Mental Wellbeing

From their academic adaptations, participants were confident in theoretical PT and OT knowledge. However, clinical practice is still a challenging component of a students' professional development (<u>Spence et al., 2019</u>). Students were also in a new highly stressful environment, two interviewees mentioned witnessing death, while four mentioned having concerns for familial safety. Nonetheless, as successful completion of placement depended on satisfactory performance, any deviation from daily schedules could be a sign of 'personal weakness' (<u>Yokoya et al., 2018</u>) and a barrier to completion. As such, students overworked themselves, ultimately leading to burnout (<u>Fares et al., 2016</u>) and increased anxiety levels. However, peer-support was identified as an effective coping strategy. By speaking to peers (<u>van Vuuren et al., 2018</u>) who had similar experiences, interviewees felt understood (<u>Powell & Toms, 2014</u>), ultimately aiding their psychological wellbeing. From this discussion, tenacity and peer support has paid dividends; leading one to suggest the positive notion that there is strength in needing others, not weakness.

Research Methods

Semi-structured interviews were the main method for gathering data. Given the team's positionality as peers of the interviewees, it is recognised this could influence their responses (De Tona, 2006). A reflexive approach suggests that although this method allowed for both standardised questions (Jamshed, 2014) and flexibility for open and complex answers (Phellas et al., 2011), due to its subjective nature, social desirability bias (socially acceptable responses instead of genuine ones) (Bergen & Labonte, 2019) and recall bias (erroneous response depending on participants ability to recall the past) (Althubaiti, 2016) can occur. This could overestimate positive results and reduced heterogeneity of responses could lower the validity and association of findings (Bergen & Labonte, 2019; Althobaiti, 2016). Following this 'self-realisation' (Johns, 2010), changes were made to minimise these issues, the most recent placement experiences were selected to allow for shorter recall periods, minimising recall bias (Althubaiti, 2016). By reassuring participants of their anonymity (Fernandes & Randall, 1992) and increasing their cognitive load (giving numerical ratings and remembering specifics) (Stodel, 2015), social desirability bias was reduced.

Limitations

This study includes methodological limitations that should be considered when interpreting results. Firstly, convenience sampling was utilised as all participants had to come from the same university. This could result in limited transferability to other universities (<u>Thomson et al., 2017</u>) and reduced generalisability. Hence, the findings may not be an accurate representation of other allied health students (<u>Jager et al., 2017</u>). Nonetheless, with the standardised educational guidelines provided for PT and OT students across the UK by HEE (<u>HEE, 2020</u>) and HCPC (<u>HCPC, 2021</u>), it is believed the results of this study could be considered in relation to other higher education institutions and student placements.

This study also largely under-represented the experiences of OT students due to the lack of interview responses from that target population. This, combined with a purely PT student research team could skew findings, resulting in-group bias, where preference is given to members of the same group (<u>Hewstone et al., 2002</u>). This would decrease inclusion of 'out-groups' (OT) (<u>Buttelmann & Bohm, 2014</u>) and hence lead to a more PT-centric conclusion.

Future research

From the study, although learning objectives on clinical placements were still met during this uncertain time, changes in clinical experience have affected the physical and mental wellbeing of students. As covid restrictions have now been eased, future research could further analyse this new hybrid model of placement and trial its efficacy in various clinical environments. Comparison studies can also be conducted between hybrid and traditional face-to-face models, identifying the advantages and limitations of both. Finally, responses from other allied health professionals in different UK universities (i.e radiographers, speech and language therapists etc.) could be considered to explore and compare obstacles and adaptations made by other students in their respective courses, attaining a more holistic understanding of their needs. Additionally, it could suggest new coping mechanisms, thus moving towards a healthier placement experience.

Conclusion

Due to the COVID-19 pandemic, trusts were forced to make necessary adaptations to ensure the safety of both clinical staff and students. However, these adaptations have resulted in changes to the way clinical placements are conducted and structured, ultimately having a notable effect on students' academic and clinical learning. This study has revealed obstacles and stressors (reduced patient contact, difficulties demonstrating learning to educators) that students had to overcome to achieve their learning outcomes and satisfactory grades. However, personal struggles were evident too, affecting both physical and mental wellbeing. By shedding a light on the student's perspective of clinical placements during the pandemic, it is with high hopes that modifications can be considered to better support students in future placements.

Furthermore, this study can be used as a steppingstone for further research in this topic, gaining a better understanding of the specific needs of the other allied health professions and recommending effective coping mechanisms to allow for a more balanced placement experience.

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An Exploration of the Impact of the COVID-19 Pandemic on Allied Health Students' Practice Placement Experiences

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Appendix A

Topic guide for placement interview

This interview will be semi-structured. This ensures that there is balance between the accounts of the participants and achieving the aims of the study.

The cardinal scale will be used to number the questions. Supplementary questions will be labelled using alphabets.

<u>Aim</u>

To explore and analyse the experiences of healthcare students from their clinical placement(s) during the COVID-19 pandemic.

Objectives

- 1. To explore how students met their placement learning outcomes and module assessment criteria during the COVID-19 pandemic.
- 2. To explore how specific changes to trusts impacted student learning experiences

Types of questions:

Exploratory	Explanatory	Descriptive	Predictive
 To investigate the changes that were implemented during clinical placements during the time of the COVID-19 pandemic. To identify recurring themes. To discover what students did differently compared to pre-COVID placements. 	 Explain how these changes have affected students. Explain how students were able to complete their placements. 	 Personal accounts of students' clinical placements. Participant's experience while on their placement. 	 Answers can be used as a base for future research.

Background/warm-up questions (1 to 4)

Purpose: Introduce the participant to the study, break the ice and ease him/her/them into the interview.

- 1. What course are you studying (OT/PT)?
- 2. Tell us about your placements so far.

- a) How many placements have you completed up until this interview?
- b) How many placements did you complete prior to COVID-19?
- What type of placements have you been exposed to?
 a) Face to face/remote or a mix of the 2?
- 4. What speciality have they been in?
 - b) Musculoskeletal
 - c) Cardiorespiratory
 - d) Neurology
 - e) Others

Main body (preparation for placement) (5 to 8)

Purpose: To identify the various ways students prepared for their placement.

- 1. What do you usually do to prepare for a placement?
 - a) Did you do anything different to prepare this time?
 - b) What was different?
 - c) Why do you think it was different?
- 2. Did the university provide support to help you prepare for this placement?
 - a) Was this different compared to what they did previously?
 - b) In what way was this different?
- 3. How did the Trust support you to prepare for this placement?
 - a) Was this different from your previous placements?
 - b) In what way was this different?
- 4. How were you/friends/family feeling leading into this placement?
 - a) Tell me a little more about this.
 - b) Why were you/they feeling this way?
 - c) What were some of your concerns?
 - d) What did your friends/peers/family do?
- 5. Is there anything else to add about your preparation?

Main body (during placement) (9 to 13)

Purpose: To identify the changes that were made during their placement and what students did to manage that.

1. Have you noticed any changes in the way the placement was structured/conducted between your pre and post-COVID placements?

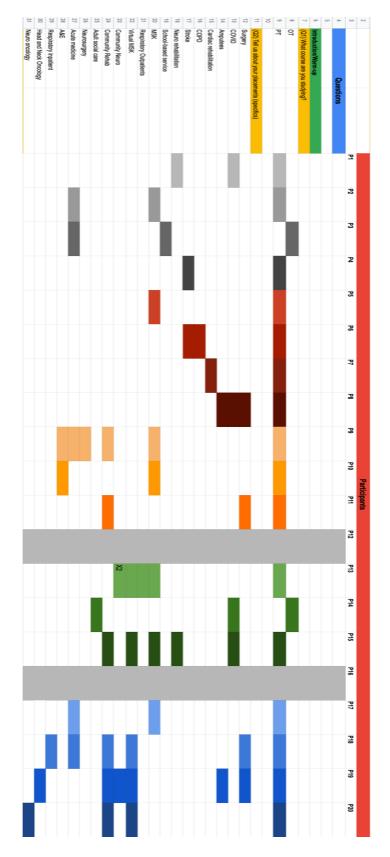
- a) Were there changes in infection control/ handover/ support/ CPD opportunities?
- b) Were there changes in clinical experience? (for example, patient exposure, CPD, emphasis on other aspects such as presentations or reflections).
- c) How safe did you feel on placement?
- d) How integrated/welcomed into the team did you feel?
- e) How did you feel in general, and why?
- Did you feel, at any point, "restricted" regarding your learning experience during placement?
 - a) Did you experience any differences in current learning experiences compared to pre-COVID placements??
 - b) Were there any added stressors related to COVID-19 that affected your placement experience?
 - c) Were you able to achieve your personal goals for placement?
 - d) How did your supervisor support you on placement?
 - e) Did you identify any changes in other's (other professionals and MDT team members) expectations of you on your placement?
- 3. Were you able to meet the learning outcomes set by the university?
 - a) Did you notice any differences in the learning outcomes set out for you?
 - b) What did you do to achieve these learning outcomes?
 - c) Did you change anything to do this compared to pre-COVID placements?
 - d) Did you find any difficulties/challenges in completing said learning outcomes?
- 4. Do you think you met the module assessment criteria for your placements?
 - a) Do you feel COVID-19 had an effect on the assessment criteria?
 - b) If so, what did you do to accommodate these changes?
 - c) Given the COVID-19 situation, did you think the changes in module assessment criteria were appropriate?
- 5. How did you structure your time and days to adapt to the changes on your placement?
 - a) Was this different to pre-COVID?
 - b) What was different/similar?
 - c) How did you adapt?
- 6. Is there anything else to add about your experience during placement?

Main body (after placement) (14 to 19)

Purpose: To understand the reflections and thought processes of students during this placement.

- 1. Did you achieve a favorable grade?
 - a) If so, what do you think helped contribute to that grade?

- b) If not, what didn't go so well?
- c) Why do you think this happened? (Help? No help? What was it?)
- d) In your opinion, what else could have helped to improve your grade?
- 2. How would you rate this placement among the others that you have experienced? (1-10)
 - a) What was good about it?
 - b) What could have been improved?
 - c) Any suggestions to improve future placements?
- 3. Has your perception of placement changed compared to pre-COVID?
 - a) If so, how/what changed?
 - b) What were your initial perceptions of clinical placement(s) during COVID-19?
 - c) Did you have any concerns regarding your clinical placement(s) during
 - COVID-19? If so, could you elaborate on this?
 - d) Do you have more confidence in your capabilities in handling patients after this placement?
 - e) What could be implemented to help improve your confidence?
- 4. What are some things that you have learnt on this placement that are different from what you learned on others?
 - a) Are they things that you will bring forward?
 - b) If so, why, if not, why?
- 5. How did this placement affect you?
 - a) Physically?
 - b) Emotionally?
 - c) Psychologically?
 - d) Socially (relationships, etc)?
- 6. Reflecting on your placement, is there anything else you would like to add?



Appendix B - Sample of Coding and Thematic Analysis - 'Rainbow Method'

An Exploration of the Impact of the COVID-19 Pandemic on Allied Health Students' Practice Placement Experiences 58