An investigation of health and social care students' and recent graduates' clinical placement and professional practice experiences and coping strategies during the Wave 1 COVID-19 pandemic period: supplementary report.

DOUGLAS, F., KENNEDY, C., TORRANCE, N., GRANT, A., ADAMS, N., BUTLER-WARKE, A., KYDD, A. and CUNNINGHAM, S.

2020

RAPID RESEARCH IN COVID-19 PROGRAMME

An investigation of health and social care students' and recent graduates' clinical placement and professional practice experiences and coping strategies during the Wave 1 COVID-19 pandemic period: Supplementary report

Appendix 1

Table 1: Discipline specific student context information

Student discipline	Stage of education on entry to clinical practice / extended paid placement	Additional insights
Nursing	Year 2 – extended paid placement Staged from 27/4/2020 – 31/8/2020	Students had received all theoretical learning and had one written assignment outstanding. They were expected to be full time but some selected part time for personal reasons
	Year 3 – extended paid placement Staged from 13/4/2020 – 30/9/2020	Students had received all theoretical learning and had one written assignment outstanding. They were expected to be full time but some selected part time for personal reasons
Midwifery	Year 2 – extended paid placement 27/4/2020 – 31/8/2020	Still had theory to receive so 80% practice time and 20% theory. Students were given the option of doing less than 80% in extended paid placement.
	Year 3- extended paid placement 27/4/20202 – 30/9/20202	Students had received all theoretical learning and had one written assignment outstanding. They were expected to be full time but some selected part time for personal reasons
Pharmacy	The structure of Pharmacy student experiential learning placements is currently different and of less duration to other healthcare professions. At present the model of funding is changing with the advent of Scottish Government Additional	The structure of Pharmacy student experiential learning placements is currently different and of less duration to other healthcare professions. At present the model of funding is changing with the advent of Scottish Government Additional Cost of Training (Pharmacy) funding.

	Cost of Training (Pharmacy) funding. Placements are currently generally in weekly blocks with around 11 weeks spread throughout the 4 years of study.	Placements are currently generally in weekly blocks with around 11 weeks spread throughout the 4 years of study. During COVID there was a call for pharmacy students to register through a portal at NHS Education for Scotland but around May 2020 when it was clear that there was sufficient capacity within the pharmacy services the portal was taken down. Many pharmacy students, however, still took up opportunities – as they always do – for summer placements within community pharmacy and the secondary care acute managed sector. This would be true for all stages (1-3). Some year 4 students - after graduating NES managed post-graduate pre-registration year – may have started their year earlier than the traditional start point of start August.
Occupational Therapy	Stage 4 OT students could have opted to join the emergency HCPC register however none chose to do so, all continued on the academic route.	Practice placement opportunities were suspended for all years from March 2020 onwards and recommenced in August 2020.
Nutrition and Dietetics	Nutrition and dietetics students all had the option to join the same emergency HCPC register but the offer came later than physiotherapy students.	The students decided to withdraw as when they went on the register they thought they would be out in practice the following day/week i.e. imminently. When they had heard nothing after two weeks lecturers from their school indicated that students were disappointed and decided to concentrate on their remaining studies. They also understood, from their dialogue with students, that many expressed a wish to 'do their bit for the NHS' but the delay in being informed when they would go out left them in limbo and led to their decisions to withdraw their initial interest. Many believed they would go out to the NHS immediately and were disappointed this was not the case.
Physiotherapy	Through the creation of the HCPC Temporary Register, 4th year [undergraduate (UG)] Physiotherapy students had the opportunity to enter practice early following the completion of the majority of their theoretical modules. This was not available	Physiotherapy students therefore had the option to sign up to the HCPC temporary register in April of 2020 and register to work in Scotland via an NHS Education for Scotland portal. However, it became apparent that there was more than sufficient capacity in the system and therefore very few physiotherapy students were actually required. Most then opted to complete all their theoretical

	to years 1-3 of the UG course or years 1-2 of the MSc pre-registration course due to the level of training completed	work and graduate in the usual way before entering the workforce.
Social Work	Stage 4 (undergraduates) and Stage 2 (postgraduate students	Students were considered suitable to join the Register for Temporary Social Workers and be employed as social workers where all 160 days of direct supervised practice (or the revised 75% full-time or the majority part-time) had been completed, without issue, and where students were on line for a pass in relation to outstanding academic work and were nearing the end of their programme.

Appendix 2: Study methodology

Our mixed methods study involved participation in a brief online questionnaire survey, followed by online interviews with a self-selecting, survey sub-sample. Ethics permission was sought and granted collectively by convenors of the ethics committees from each of RGU's academic schools represented in the study population. The research was also supported by a study Advisory Group which comprised of the research team and senior members of staff from each academic school involved. The survey was used to contextualise and characterise our study population, to inform the interview topic guide development and facilitate maximum variation sampling for the interview study recruitment. The survey questionnaire contained questions to determine the respondents' demographic profile, and mental wellbeing and resilience scores. Data analysis was carried out using standard statistical methods. Online face-to-face interviews were conducted via MT due to the COVID-19 restrictions using a specially developed topic guide. Here participants were invited to discuss their motivation and experiences of entering and working **(or not)** in clinical practice at this time, how they coped with this experience, and about their use of group technologies as a potential coping strategy. Interviews were recorded, with permission, and fully transcribed. Data analysis was supported using NVivo (Version 11) and a thematic framework analysis was employed. All research team members agreed the initial codes and coding frame. Once all data had been coded, categorised, and initial themes identified, the results were shared with the Advisory Group members for discussion, sense checking and data interpretation.

Information about the mental wellbeing and resilience instruments used within study questionnaire and the statistical approach used to analyse the data.

Mental wellbeing was measure using the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS). The WEMWBS is a 14-item scale covering subjective well-being and psychological functioning and **score range from 14 to 70**. **Higher scores suggest better mental wellbeing**. The Scottish population mean score was 49.8 in the 2019 Scottish Health Survey.

Resilience was measured using the 10 item Connor David Resilience Scale (CD-RISC). The CD-RISC-10 consists of 10 statements and **total scores range from 0 to 40. Higher scores suggest greater resilience** and lower scores suggest less resilience, or more difficulty in bouncing back from adversity. CD-RISC-10 has been widely used worldwide and a general population sample of 18-34 year olds in Scotland reported mean score of 29.6.

Analytical approach used

Online questionnaire data were analysed using the Statistical Package for Social Sciences (SPSS; v25). Descriptive summary data are presented as number of participants (n) and percentage (%), mean and 95% confidence intervals (95% CI). T-tests were used to explore the mean difference for normally distributed continuous variables. All reported p-values were from 2-sided tests, and a p-value of 0.05 was used to denote statistical significance.

Appendix 3: Survey respondent characteristics, mental well-being and resilience scores

Ninety-seven participants completed the online questionnaire. The sociodemographic characteristics and mental wellbeing and resilience scores are shown in Table 1.

The largest professional group of respondents came from Nursing (n=45, 46.4%) followed by Midwifery and Pharmacy (n=17, 17.3% for both). The majority of respondents were 25 years or under (n=60, 61.9%) and 86% (n=83) were female. The majority had gone early into clinical practice (n=82, 84.5%); worked full-time hours (n=65, 75.6%); in a hospital setting (n=52, 62.7%) and in NHS Grampian Health Board (n=62, 63.3%) See Table 1.

For *all online questionnaire respondents* (n=97), the mean WEMWBS score was 49.1 (95% CI 47.5 – 50.7) and CD-RISC-10 mean score was 29.0 (95% CI 27.7 – 30.3). Mean mental wellbeing and resilience scores were lower in those respondents who took part in interviews compared to those who did not (WEWMBS mean score 46.7 [95% CI 43.6 – 49.8] vs. 49.7 [95%CI 47.8 – 51.6] and CD-RISC-10 mean score 28.4 [95% CI 24.8 – 31.0] vs. 29.2 [95% CI 27.7 – 30.6]). Although these are not statistically significant (p=0.149 and p=0.630 respectively).

The nursing students reported significantly higher mean mental wellbeing and resilience scores compared the other HCPs combined (at p <0.05) and for each of the other professional groups. See Table 2 below.

Table 1. Characteristics of online questionnaire respondents (n=97)

Professional group	**N (%)**
Nursing	45 (46.4)
Midwifery	17 (17.3)
Pharmacy	17 (17.3)
Social Work	11 (11.2)
Physiotherapy	3 (3.1)
Other	4 (4.0
Age	
Under 25 years	60 (61.9)
26 - 35 years	21 (21.6)
36-55 years	16 (17.5)
Female	83 (85.6)
Year Group	
Year 2	46 (47.4)
Year 3	29 (29.9)
Year 4	22 (22.7)
Gone early into clinical practice	**82 (84.5%)**
Hours currently working (n=86)	
Full time (37.5 hrs pw)	65 (75.6)
Part time (< 37.5 hrs pw)	19 (22.1)

Not currently working	2 (2.3)
Clinical area	
Hospital	52 (62.7)
Community	28 (33.7)
Care Home/ other	3 (3.6)
Missing n/a	14
NHS Board	
Grampian	62 (63.3)
Tayside	8 (8.2)
Fife	5 (5.1)
Other	11 (12.8)
Missing n/a	12

Table 2. Mental wellbeing and resilience scores for all participants, by interviewees and professional group

	n	Mental Wellbeing † Mean (95% CI)		Resilience † Mean (95% CI)	p-value
Interview	19	46.7 (43.6 – 49.8)	0.149¥	28.4 (24.8 - 31.9)	0.630¥
No Interview	78	49.7 (47.8 – 51.6)		29.2 (27.7 – 30.6)	
Professional group					
Nursing	45	51.1 (48.6 – 53.5)	0.026*	30.7 (28.6 – 32.8)	0.013*
All other HCPs	52	47.4 (45.2 – 49.6))		27.5 (26.0 – 29.1)	
Midwifery	17	46.8 (42.7 – 50.9)		27.2 (24.0 – 30.4)	
Pharmacy	17	44.7 (40.4 – 49.0)		28.1 (25.5 – 30.7)	
Social Work	11	48.1 (43.9 – 52.3)		26.4 (22.0 – 30.7)	

† Higher scores for each instrument indicates better mental wellbeing (range 14 to 70) or greater resilience (range 0 to 40)
¥ t-test for “Interview vs. no interview”
*t-test for “Nursing vs. other HCPS”

Appendix 4: Illustrative quotes associated with key qualitative findings

This section provides illustrate participant quotes to support and evidence each of the key research findings presented within the main report. This section has the secondary goal of showcasing some of the rich qualitative data, collected using the onlinle methodology used for this study.

Lived experiences and coping strategies:

Moral Responsibility and University Pressures

As discussed in the Key Findings in the main report, some participants identified a sense of moral responsibility to contribute to the pandemic response. In one case, the notion of moral responsibility was highlighted by a children and young persons' nurse, who stated:

> *"I chose to opt in because even though […] there was a pandemic going on, […] I feel it's our duty, as a nurse to, we have to provide our services even like, when I'm a registered nurse I'm not really gonna have the choice to say, I don't want to be part of a pandemic. So I feel like it's our role, erm, to be part of that"*

Similar sentiments were echoed by another participant, a pharmacy student, going into third year who entered a practice placement early. She stated:

> *"I definitely […] think if somebody had the option to, I think they should kind of really consider doing it [going into practice early]. Because it's only going to be […] valuable experience. [There is] nothing to […] lose from it"*

Another Pharmacy student, also going into third year said:

> *"I was quite excited, because, er, it's sort of like a once in a generation sort of pandemic sort of thing to be able to work through it, and then just the hands on knowledge and experience"*

However, perceived implicit university pressure to ensure progression through students' education programme, were also key considerations in the decisions of many who signed up for a paid clinical placement, or to enter professional practice early. One nursing student provided a different perspective to that of the quotes above. He stated:

> *"[…] You didn't really have a choice. They were like, oh, you can choose to join or not join but, if you don't join, we're not telling you what's going to happen. A lot of students felt like you had no choice but to sign up. It's like, well, we're not going to finish you know, telling us, we don't know when your studies will come back, which I thought like wasn't really giving an option. It's either you do or, you're not qualifying on time, which I thought was a bit unfair. I thought it was a lot of pressure on students […]"*

Another participant from pharmacy spoke of how he waited until he had graduated to enter practice early:

> *"[…] So I waited until I got my degree. Erm, I agreed to start [after that]. […] It was just like the school advised that, to be honest. Okay, yeah, yeah. They advised us, they just said cause, erm, like, cause they weren't going to postpone exams or anything. So, they said it'd probably be better if we focused on passing the exams first before taking on work kind of thing…"*

University and Workplace Communications

Related to the above theme, university and workplace communication were sometimes perceived to lack clarity and consistency, causing anxiety for some participants. One early-entrant pharmacist shared his experience of awaiting confirmation of his placement to go into practice:

> *"[it] was really unclear sometimes […] a lot of me having to email and chase up like, I wouldn't hear anything for like weeks and weeks I'd be like 'ah' I'd be like, 'I'm starting soon, I'm starting soon' but never actually had a start date. Yeah, it was on the Tuesday I missed the phone call because I was working in community (pharmacy) so I phone back on the Wednesday, and they said, Oh, do you want to start tomorrow. And I was like, Oh, I can't cause I'm working then I started on the Friday and like, with all this dead time and then all of a sudden like, 'Ah start now"'*

He later continued this theme:

> *"It was a bit unorganised from that perspective. […] I think the communication could have been clearer and just giving you a start date from the very beginning. Yeah, to work towards rather than just be like, Oh, you're starting tomorrow? Yeah. Very frustrating because you're always waiting…"*

The quote below – suggesting similar anxieties regarding communications - came from a second-year mental health nursing student who opted out of early entrance to work.

> *"So at the very start of the pandemic, erm we were like initially told that we probably wouldn't be going on placement. This was like the initial information. Erm so my, like one of my parents works in the NHS and was dealing with very vulnerable people. So she...I lived with them at the time, and she asked me to move out, because I wasn't gonna be going on placement. Erm so I moved in with my partner and his flatmate. His flatmate was very vulnerable so I was like, but that's okay, because I'm not going on placement. And then we found out that we were going on placement. So I didn't really have an option. I had to opt out because she's severely asthmatic, had been hospitalised probably about a month or so before. So I couldn't go and take the risk"*

When asked how this made her feel, she replied:

> *"I was devastated because at that time, we didn't know how that would impact the course I was like am I gonna get to go into third year. Erm I'd done really well on my previous placement and you know, got everything signed off for the year pretty much. My next placement was going to be more about my experience, and I was like, is that gonna be disregarded […]"*

However, most viewed communication issues and a lack of clarity to be understandable in the context of the pandemic response, and ever-changing contextual academic and healthcare landscape. A children and young persons' student nurse, going into third year at the time of interview, clarified this:

> *"[…] I guess it was just hard because at the time nobody really knew what was happening. Erm, so I guess we, as students, were getting frustrated because we weren't getting answers, but I think we were getting a bit too frustrated with RGU because they couldn't really do much more than they were doing. Erm, so yeah, that was the only kind of downside, but when we got our placements, we were all happy. It just took a while to get there"*

Mentoring Experience of Nursing and Midwifery Participants

Nursing and midwifery participants reported differing on-the-job mentoring experiences, which was a source of stress for some. Others reported excellent mentee experiences, and feeling supported by their wider clinical team. A few participants also reported negative experiences, including isolation and distress, in interactions with a small number of colleagues within the wider clinical team. Of positive experience, one midwifery student, in third year at the time of interview and her time in practice, shared her thoughts:

> *"[…] When we did go into placements […] we still got our mentors, we still, erm, knew where to go up in the scale*
>
> *[…]*
>
> *My mentor like she was, she was lovely. And I think if I did have any issues I could have went to her, but because we're still getting graded and stuff, I kind of like to keep that kind of professional boundary…"*

Another student, in his third, and final year of adult nursing study shared a somewhat different experience; highlighting the absence of some staff tasked with mentoring duties:

> *"[…] Approximately 75% of the staff in team were actually off sick over three weeks […] So,then obviously getting […] who was assigned as my mentor, I'd worked with her on the first day I started working, and then I didn't work with her until after [these] 15 weeks because she had to isolate because she was pregnant. So, it was just a bit […] there wasn't sort of clear information there, for us and for the ward as well.."*

Finally, an extremely negative and traumatic experience was recounted by one participant; a second-year nursing student. Of her experiences with mentoring whilst in placement, she said:

> *"When my mentor was giving the feedback, she can't even call me; my attention, that this is what happened.*
>
> *[…]*
>
> *I mean, do extra work and just to win people's hearts to tell them I'm up to the task, but they never believe in me. So, and it was was [sic] really tough that I go through all these again, they still do not see my input, they still do not appreciate my hard work and they still do not appreciate how I have gone through the stress to like, all the tasks that I was asked to do, I did it, they, it's only complaining upon complaining every time, you know. Then, you know, they're, they're never appreciate everything. I just don't really get it they talk about me, my English is not good, this and that, this, so many things were said and it's was doing my head in that I must always, I when I go home I'm always using sleeping tablet and then I have to call my GP this, to like, I never open up to you now cause I was fighting it myself, I was too traumatised to talk to uni about it and I don't know, but. […]"*

Challenges Gaining Clinical Competencies

Some nursing and midwifery participants experienced challenges gaining the appropriate clinical competencies they needed for educational and professional progression. Hospital-based nursing participants were frustrated at being directed to work that was required and reflective of their temporary paid status, but which they felt prevented them engaging in the full range of clinical activities required for their stage of education. Their paid status appears to have acted as a constraint on their educational and professional development. One student nurse, about to go into third year said of her early entrance experience:

> *"[…] My competencies, [were] actually at the point where […] it was done very last minute. […] Kind of like, oh my goodness, like, I have to get these done like, you know, otherwise I'm not going to pass my second year*
>
> *[…]*
>
> *[I don't feel] cheated, but I feel like it hasn't really equipped me very well for like, a more normal time..."*

Another student nurse in her third year of study spoke of the difficulties in getting time allocated to the signing-off of clinical competencies. While she did achieve this, she spoke of the difficulties she faced:

> *"I have. I've, I've managed, I've really had to be proactive. Erm, at week seven I got in touch, well week six, and we had a meet in week seven with the PEL team, who really helped. Erm, I was really struggling because I, the first seven weeks like that with, er, no drug rounds, no, to put in the picture as well, my first placement of third year was in* ***[location removed]*** *minor injuries unit which, there was no drug rounds. I know I had to work really hard to get my competencies there. [To] try and get into the ward, which would have been okay, but they already had three students in, erm,* ***[location removed]*** *wards, there's only two wards there"*

Reflecting on the experience overall, the same participant stated:

> *"[…] I would rather have had my, my learning, and nae [not have] been paid, and had my learning opportunities. That's 100%, how I feel. It's great to be paid. I mean, we were once told, we were told at the beginning that there was band three students and band four students, so the stage two, if you were in stage two you were paid band three. And if you're in stage four, er, stage three, you were paid as a band four and this was because of our level of knowledge, that we could contribute, erm, or skills that we had, and no, no. […]"*

The participant then later elaborated:

> *"I printed a thing out, erm, our job role. And yes, that was healthcare support worker duties, of course there was, but there was also supporting the nurse learning [from] fitted nurse and that kind of bits as well. No, no, I do find, I mean, I didn't mind doing obs at all, I quite see that as an opportunity to get to know the patient, speak to the patient. Erm, a lot of students really feel that the obs are mundane. I know they do, I've heard them saying it, but I, I like that. But I feel that you get given that because the nurses dinne [don't] really hae [have] time to do it"*

Pharmacy Participant's Positive Experiences

Pharmacy participants were more likely to report positive workplace experiences, and more commonly reported positive interpersonal interactions with workplace colleagues. It is unclear why this was case, and contextual factors such as stage of completion of their educational programmes, previous workplace experiences and location of their placements may be relevant. One early-entrant pharmacist explained his positive experiences in his own words, highlighting the notion of workers banding together to work as a team. He said of his initial entrance into practice:

> *"I was quite nervous, obviously, because it's something I'd never done before. Like I don't spend a day in a hospital before then, so it was a bit nerve wracking at first but after the first day it was fine. Everyone's dead lovely. I've been nervous because obviously like all this Covid was going on and [to] put yourself in an area where it's possibly there. But I felt as though it was quite a safe environment. Everyone was wearing masks - very much at all times at the hospital […] it was really good"*

He later elaborated further:

> *"I was lucky, I was working on a team I really got on well with.*
>
> *[…]*
>
> *We coped together, we worked well together. And we stayed late pretty much every night at the beginning ... we'd order the pizza together […] we put some music on and I just like, kept working as a team all three or four of us… […] I think the team I was working with supporting each other. And that was enough support for me. That was all I needed…"*

Personal Growth Narratives

While many spoke of difficulties and uncertainties during this time, it was also reported as a period of personal growth too. This finding supports the slightly higher than national average resilience scores found in our sample of nursing students. One nursing student, going into third year at the time of interview, compared her experiences of a previous placement with her early entrant experience. In particular, she noted the value attached to being paid for work completed:

> *"[…] for my previous […] experience I felt totally like, my time was quite literally worthless in the kind of, you know what I mean? Like, my time was quite literally, like worthless [in] the eyes of the government. So, there was no pay even though I was working. I did exactly the same kind of stuff as I did in my previous placements. There's no difference.* ***[…]*** *But this time I was paid. And people were aware of that. So, I was much more an employee […] I'm a valuable asset, not just someone who's on the ward helping without any pay.*
>
> *[…]*
>
> *I felt like you got a lot more respect on the ward, especially as someone who is younger, I feel like a lot of people who are younger get treated quite badly. And that that pay kind of made other people be recognising that actually, they're not valueless on the ward"*

Throughout the discussion the theme of pay and value was mentioned several times. The participant concluded the topic by stating:

"[…] this is a bit of a risky thing to say, but because you paid, you felt more valued within the ward"

One children and young persons' nurse shared her experience of person growth during early placement:

"I got a lot of insight into different specialties I was with. […] I kind of rotated around them all. I was with diabetes, I was with endocrine, erm, oncology, renal, allergy

[…]

I feel like I got a lot out of it. […] I got to work with different multidisciplinary teams. So I worked with dieticians and like consultants, I did do some ward work. Erm, so I feel like I got to see a lot and I have […] gained quite a lot of experience with different, erm, different specialties. […]"

Another student nurse, in her third year stated:

"Well, to be honest, I have a heart for the nursing, so when I connect with a patient and really connect, and it's happened a few times, it it's made my heart burst".

[…]

"Came out a room feeling, I've really built up something with that patient and that's a high to me. Erm, I got to run through bloods with my mentor to, to aye, through the line and to be able to make up the the antibiotics without it spraying all way little things like that, just, like I did it, I got it through a line with nae [no] bubbles. That little wee things have been big things to me, erm […]

The Negative Impact of Media Coverage

Many participants indicated they were aware of continuous media coverage of COVID-19 related stories, which had impacted negatively on their mental health and wellbeing over time. A few reported disengaging with news reporting as a coping strategy.

One third year pharmacy student elaborated on this. He said:

"Yeah. Yeah. Just, not during the peak of the pandemic [in response to being asked about watching the news], so when the pandemic happened, erm, I was, and then I wasn't. I was, I found it quite damaging to go on all the time. So during my exams in June and things, erm, December 2019, I think it was just before New Year, I permanently closed down my Instagram account for various reasons, and one of the only young persons, one, young people, that probably don't use it, that doesn't use Instagram. I had felt my mental health declining and I felt like social media wasn't benefitting it. So, I closed Instagram down. And generally, my thought was that I've used that it for most of the 2010s, I don't really want to take it into the 2020s, and if I go back to it I go back to it, but I closed it down, I've been off Instagram since December. Facebook, I don't have the app on my phone, erm, because of exam systems, and because different commitments, I only use the website, because it's an interface that's not very pleasant to use. So, I find I'm less likely to spend as much time. So, Facebook, I spent definitely less time on because everything that was going to Facebook was, was COVID, COVID, COVID, And I found it deeply frustrating to see a uninformed people posting a lot of nonsense, erm, which was not evidence based, it was not coming from fact"

Role and acceptability of online group technologies and other forms of support:
Participation in digital group messaging technologies (such as WhatsApp) involving friends, family members and peers appears to have played a key role in alleviating the anxieties outlined above. The formal stress management interventions that had been created and offered to students by both the university and health care settings were rarely used, although all were aware of their existence.

A fourth-year occupational therapy student confirmed this:

> *"I know RGU have quite a good counselling system and like good at the mental health awareness and things like that, and I think the NHS themselves were offering support for people who were going in to work against Coronavirus, erm, I've not seen any personally, or had any sort of contact about that. But I think if I was to seek it out then I'd probably have no trouble finding some"*

Our original plan to collect data using online focus groups, was poorly received. However, Microsoft Teams (MT) mediated one-to-one interviews were successful, and reported as positive experiences. The interviews revealed that reluctance to take part in the focus groups arose due to concerns about sharing negative experiences and anxieties with strangers in a group context.

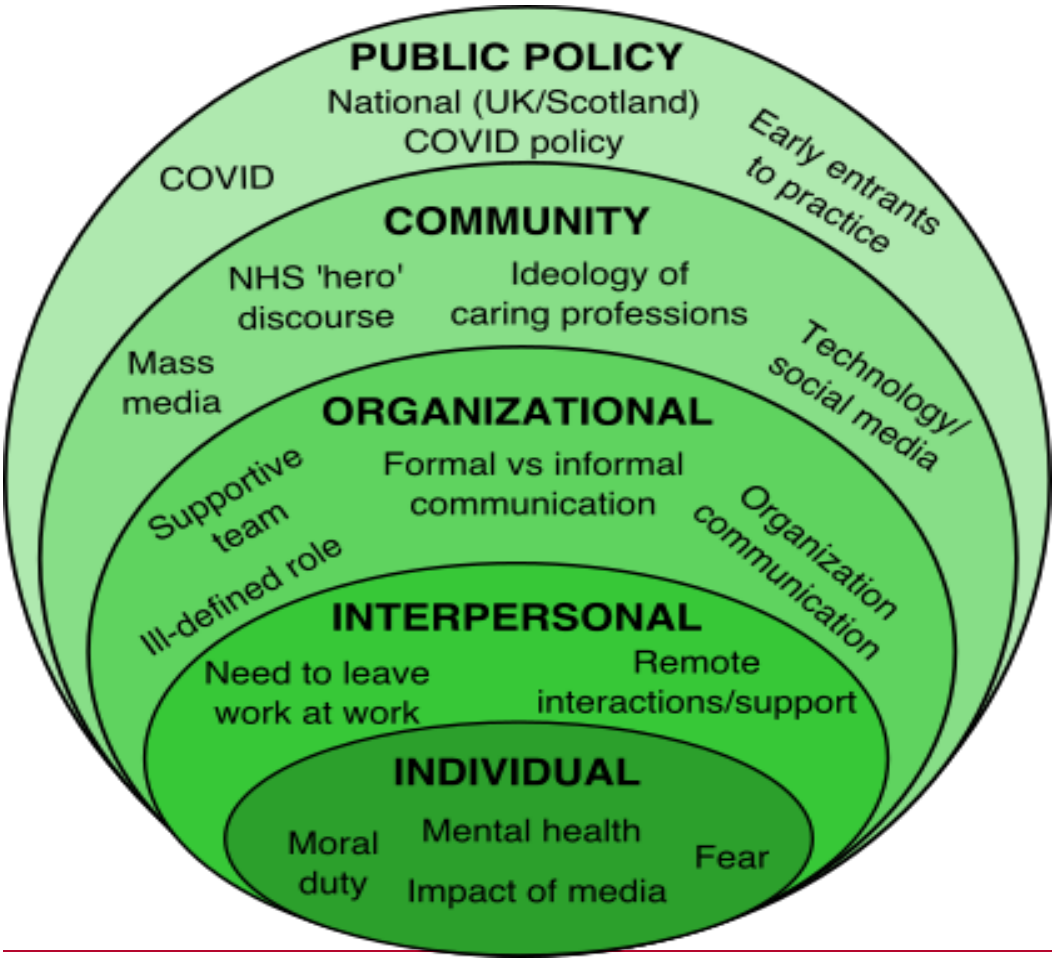
One pharmacy student shared his opinion on the barriers to recruiting using focus groups:

> *"To be honestly, I like the sound of a focus group but, I kind of know how these things go when you're with people from like my year or whatever, like, I know if it was a focus group, I wouldn't have done as much talking as a one on one. So you probably do gather more information in one on one interviews but, it's probably more time consuming"*

He later said of the use of online technology – particularly video calls:

> *"Yeah, I'm pretty used to it now like, I remember at the start of lockdown, you know, like friends and family would go on stuff like this and do quizzes and that so"*

Appendix Four: Socio-ecological conceptual model depicting the qualitative themes



Adapted from Stokols et al 2013

Appendix 5: Potential impacts

Future Pandemic Planning 1. Reorganising NHS services continues, and is likely to do so once the current pandemic is judged to be over - or contained to an acceptable level. In this context, and that of future pandemics, ensuring practice learning can continue, and managing student placements, is critical to workforce planning and supply. **2**. Recognition of the anxieties and difficulties some students have around achieving their practice competencies, in part linked to their paid status, is important. Students were anxious about achieving their competencies and about halting their progress if they did not participate in paid practice learning. We argue this supports the need to ensure maintenance of student status where efforts are focussed around practice learning needs and the preparation of competent practitioners. Student status can protect learning time to help ensure a quality learning experience. **3.** Practice placement capacity has declined during the pandemic which has challenged continuity in practice learning. Creative and alternative placements therefore need to be considered in partnership between practice providers and universities.

Workplace Policies and Practices 1. Communication of constantly changing complex information from policy makers, professional regulators and practice and education providers was stressful for participants. Collaborative / joint statements should be used where possible. 2. Where mentoring and assessment is to take place, time should be ring-fenced. 3. Stress management resources put in place in clinical practice and by the university were not used to any extent due to practical issues such as time constraints and personal preferences. Rather; participants formed their own support networks through group messaging platforms. The use of digital group technologies in preference to other formal sources of support may be linked to the lockdown context in which this study was conducted. Regardless, this suggests co-production of resources to provide support is necessary.

Higher Education and Curricular Implications 1. Students need to be adaptable and confident in managing change as they enter the workplace and universities should consider how best to achieve this. The student body, particularly those who act as student representatives, should have active engagement in designing and planning student support services. 2. Quality, over quantity, of learning opportunities should be prioritised to meet practice competencies. 3. Group messaging has shown promise as an outlet for improving (self-identified) stress. However, universities need to ensure students understand appropriate use of such media and that inappropriate use can put professional registration at risk.

Further Research We recommend continued following of the health and mental wellbeing of this cohort and to consider doing so for current and future cohorts who are entering practice in a period of significant disruption and service redesign. The lack of social work or care, or physiotherapy students' experiences in the interview study is notable, and merits further investigation to understand why and what the issues for those student groups were. The perspectives of practice mentors and assessors should also be investigated as their perspectives were not covered in this study. More research is required to investigate the sense of moral responsibility to take part in early entrance initiatives for health and social care workers. Whilst students suggested this was a governing factor in their decision to enter professional practice early or take up a paid clinical placement, it is presently unclear the extent to which this notion was constructed by institutional discipline, or personal factors. This would represent a salient next step of research for future investigations. Investigations may also wish to utilise the socio-ecological model developed for this study, to examine linkages between moral responsibilities in similar demographics, and the wider social and personal factors uncovered in this research project.