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University student experiences of work-based placements during COVID-19 pandemic: an inter-disciplinary survey of allied health and social work students

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Abstract

Purpose – Work-based placements are central to the university education of allied health and social work (AHSW) students. As a result of COVID-19, the clinical learning environment of students' work-based placements was dramatically altered resulting in numerous documented challenges. This inter-disciplinary study aimed to evaluate AHSW students' perceptions and experiences of completing a diverse range of work-based placements during COVID-19.

Design/methodology/approach — This study was a mixed-method inter-disciplinary study using an anonymous online survey consisting of multiple choice, Likert scale and free text questions. Mixed-methods design supported amalgamation of insights from positivism and interpretivism perspectives and enabled research questions to be answered with both breadth and depth. 436 students were invited to participate who were enrolled in five AHSW educational university programmes: speech and language therapy, occupational therapy, physiotherapy, radiation therapy and social work. Data collected was analysed using both quantitative (descriptive and analytical statistics) and qualitative (thematic analysis) methods.

Findings – 118 students participated (response rate: 27%) representing a range of AHSW disciplines who attended diverse placement settings. While there was extensive disruption in the learning environment leading to increased levels of stress and concern, a triad of individual and systemic supports helped to ensure positive work-based placement experiences and student success for the majority of AHSW students during COVID-19:



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The authors would like to thank all respondents who participated in this study.

Originality/value - This inter-disciplinary study reports the work-based placement experiences from the professional education programmes of healthcare students during the COVID-19 pandemic, giving a unique during COVID-19 view of their perspectives and learning during this unprecedented crisis.

Keywords Workplace learning, Placement learning, Work-based learning, Work placement Paper type Research paper

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Introduction

Allied health and social work (AHSW) professionals are distinct from medicine and nursing professionals and are responsible for the delivery of diverse health services relating to the identification, evaluation, rehabilitation, management and/or prevention of a wide range of diseases and disorders (ASAHP, 2021). AHSW include the disciplines of occupational therapy, physiotherapy, radiation therapy, social work and speech and language therapy, amongst others.

Work-based placements in allied health and social work professions

Work-based placements (WBPs), also known as clinical placements, clinical education, practice education or fieldwork, are a fundamental feature of the university education of AHSW students, fulfilling 25–33% of the content of educational programmes (Brown et al., 2011). For AHSW students, WBPs typically take place in a range of clinical and social care settings such as acute hospitals, rehabilitation centres, disability settings, primary care settings, probation services or child protection services. Placements facilitate the translation of theory to practice and assist students to acquire the required standards of proficiency of their discipline (McAllister and Nagarajan, 2015). Supervision of students on placement is primarily provided by qualified AHSW practitioners based in a professional work-based environment, who are responsible for guiding learning by acting as a role model, providing learning directed opportunities and evaluating the student's performance in real-life practice (Delaney and Bragge, 2009). Supervisors are typically known as practice educators (PEs) and may be referred to as practice teachers, clinical educators, clinical preceptors or clinical mentors (O'Brien et al., 2019).

Impact of COVID-19 on work-based placements (WBPs)

Coronavirus disease 2019 (COVID-19) is a highly transmissible virus that can potentially result in severe acute respiratory illness (Flaxman et al., 2020). It was categorised as a pandemic by the World Health Organization (WHO) and led to global introduction of public health measures such as physical distancing, mask wearing and online education (Choi et al., 2020). Research on epidemics, pandemics and major disasters indicates that exposure of frontline healthcare workers to these potentially traumatizing events leads to a range of outcomes from increased empathy and resilience (Barello and Guendalina, 2020) to pervasive and profound negative impacts on mental health (Busch et al., 2021). Trauma theory suggests that experiences are traumatic if they "overwhelm the ordinary human adaptations to life" generating "intense fear, helplessness, loss of control and threatened annihilation" (Herman, 1992, p. 32). This points to the importance of evaluating the preparedness and availability of appropriate supports for all frontline workers, including students on work-based placements, to assess their experiences, determine the impact of potentially traumatizing events and help mitigate the effect of future incidents.

COVID-19 placed unprecedented demands on health and social care systems and as a result, student placements in numerous medical and AHSW professions were dramatically delayed, postponed or cancelled indefinitely (Sarbu and Unwin, 2021; Tay et al., 2020). In the Republic of Ireland (ROI), placements for most AHSW students in the national health and social services were suspended from March to July 2020. The potential long-term impact of removing students completely from the clinical and professional learning environment for the duration of the pandemic was extensive. Possible consequences included delayed graduation of final year students, hindering the recruitment of newly-qualified graduates into the health and social care systems. In addition, the progression of other students into the next year of their course may have been delayed, creating an overload of placement requirements post-COVID-19 that may have been challenging to fulfil (Rose, 2020; Tay et al., 2020). In line with international practice, placements for AHSW students in ROI resumed on a phased basis in June/July 2020. This was facilitated through the development of a comprehensive health and safety policy document, hybrid placement models, extra preparatory workshops, online courses, and additional infection prevention and control measures. Placement schedules were re-structured to support students to safely re-enter a changed work-based learning environment, with adaptations including delayed start times, delivery of telehealth appointments rather than face-to-face appointments, restrictions on access to specific patients/clinical areas/home visits and where applicable reduction in student-supervisor ratios from 2:1 to 1:1.

COVID-19: placement provider and student perspectives

Challenges of providing WBPs for AHSW students during COVID-19 have been reported in the literature from the placement provider perspective, included balancing the competing demands of delivering healthcare and adhering to all infection control protocols, while providing quality clinical learning opportunities in the middle of a pandemic (Slanetz *et al.*, 2020). Many highlighted the importance of preparing healthcare students to graduate, whilst simultaneously ensuring students' safety and wellbeing and avoiding burdening practice educators as they managed increased workplace demands (Compton *et al.*, 2020; Hickland *et al.*, 2020; Rose, 2020). Barriers were identified in securing sufficient learning opportunities for students due to service curtailments, decreased volumes of appointments to allow for infection control measures and redirection of students away from workspaces that could not allow for adequate physical distancing (Rainford *et al.*, 2021; Tay *et al.*, 2020). Nevertheless, perceived benefits of facilitating WBPs during COVID-19 have also been captured. For example, enabling students to experience the implementation of public health guidelines on a mass scale and witnessing practitioners act with humanity and compassion (Halbert *et al.*, 2020).

Likewise, studies have explored the perspectives of AHSW students re-commencing WBPs during COVID-19. Concerns reported centred on fears of contracting the virus in the WBP or on public transport getting to the site, and subsequently infecting family members when they returned home (Tay et al., 2020; Sarbu and Unwin, 2021). Additional challenges identified by AHSW students related to worries about assessments, isolation from friends and family, poor communication about placement schedules and loss of income from part-time jobs (Kuliukas et al., 2021; Rainford et al., 2021). While some studies suggested that students were concerned about availability of patients and staff to meet course requirements, others believed that completing placements in hospitals during COVID-19 would supplement their learning opportunities (Choi et al., 2020).

However, some of the former student perspectives were gathered very early in the pandemic, before the students re-entered the work-based environment, or were conducted with individual disciplines based in countries with different healthcare system and structures. For example, Compton et al.'s (2020) study collected medical students' preferences for returning to placement in Singapore less than a month after the WHO declared a pandemic; Tay et al. (2020) reported on the opinions of radiography students in Singapore; Rainford et al. (2021) conclusions were drawn from radiography students in 12 countries and some survey questions related to perspectives on potential future placements rather than

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actual experiences. Many studies were also focused on the opinions of medical students only (e.g. Compton *et al.*, 2020; Choi *et al.*, 2020; Hickland *et al.*, 2020; Rose, 2020) or nursing or midwifery students only (e.g. Kuliukas *et al.*, 2021; Ulenaers *et al.*, 2021), whose role and responsibilities on placement differ to those of AHSW students. Therefore, previous findings may not be applicable to the unique practices and procedures relevant to AHSW students. Furthermore, no interdisciplinary studies reporting students' experiences of WBPs during the pandemic were evident in the literature.

Aims

This inter-disciplinary study aimed to evaluate AHSW students' perceptions and experiences of completing a diverse range of WBPs during COVID-19. In particular, the study sought to assess the effect of new health and safety measures, the impact on students' ability to learn and develop the required professional competencies of their discipline and students' perceptions of supports they received to address any concerns that arose. Increased student participation in appraising placement experiences can contribute towards quality assurance of university programmes. In addition, our objective was to capture recommendations and guidelines for major emergency disruptions of WBPs in the future. This may help to ensure that student education is not put at risk during future pandemics or similar widespread disrupting events.

The research questions were:

- RQ1. What were AHSW students' perceptions and experiences of WBPs during COVID-19?
- RQ2. Did COVID-19 impact on students' ability to develop the required professional skills and competencies of their profession?
- RQ3. Were the supports students received during COVID-19 adequate and were recommendations for the future identified?

Methods

Design

This study was a mixed-method inter-disciplinary study using an anonymous online survey. A mixed-methods survey provides several benefits such as assimilating frameworks and insights from positivism and interpretivism. It helps to address the limitations of a single methodological approach, facilitating research questions to be answered with both breadth and depth (Enosh *et al.*, 2014; Fetters, 2016). Ethical approval was obtained from the research ethics committee in the institution where the students were registered as full-time students. The Consensus-Based Checklist for Reporting of Survey Studies (CROSS) (Sharma *et al.*, 2021) was used to support the report of this study (see Supplemental material). This checklist is based on a comprehensive literacy review and Delphi process with a panel of international experts on what constitutes quality in survey studies, including web-based surveys.

Data collection method

An online anonymous survey was designed to capture students' perspectives and experiences of placements during COVID-19 through a combination of open (qualitative) and closed (quantitative) questions. Online surveys enable the collection of diverse types of data in an efficient manner from a large number of respondents who are geographically dispersed (Sharma *et al.*, 2021). The design of the survey considered recommendations from Dillman *et al.* (2014) to increase potential response rate. Informed by their practice education

expertise, all authors representing the perspectives of five AHSW disciplines, contributed to the iterative design of the survey to ensure the questions were inclusive of each professional context. The survey tool designed consisted of five sections: (1) demographics; (2) health and safety; (3) practice education support from college department and placement site; (4) professional development and learning experience on the WBP; and (5) additional comments. The survey tool was pre-tested with a class of 30 students from occupational therapy who supported its structure and relevance, confirmed its clarity and accessibility, but recommended reducing the number of questions from 56 to 46. In the final survey distributed (see Table 1): six demographic questions in section 1 were closed items with multiple choice options; 34 questions in sections 2-4 were four-point Likert response scale questions; and six items were open questions.

The survey contained no identifying information linked to the respondents and it was shared via a link to an online tool (i.e. Microsoft Forms). To ensure anonymity and confidentiality, Microsoft Forms was set not to collect IP addresses and did not require participants to log in to complete the survey. Only the authors had access to the anonymous password protected data collected.

Participants and data collection

This study was conducted in the Republic of Ireland during the height of the global pandemic (March 2020–June 2021). During this time, the Republic of Ireland ranked from mild to severe on the World Health Organisation's Public Health and Social Measures Severity Index, with peaks of heightened severity evident in the period December 2020–April 2021, including school and business closures, and restrictions on domestic movements and international travel (https://covid19.who.int/region/euro/country/ie/measures). The university in which this study was completed operated a hybrid model of education during this period, providing face-to-face and online teaching. Work-based placements were fully supported to continue face-to-face in the clinical learning environment, while adhering to public health guidance and infection control measures, to support the development of clinical competencies of student AHSW professionals and to meet the regulatory and professional body requirements for graduation.

Students enrolled in five AHSW undergraduate and postgraduate programmes in Trinity College Dublin were invited to participate via an independent gatekeeper based in each of the disciplines. The five AHSW disciplines included in this study were speech and language therapy, occupational therapy, physiotherapy, radiation therapy and social work. Employing purposive sampling, the independent gatekeeper invited entire student class cohorts who met the inclusion criteria to participate. The inclusion criteria was: (1) class cohorts who were registered in one of the former undergraduate or postgraduate university programme; (2) class cohorts who had completed a placement during the COVID-19 pandemic in Ireland during the academic years 2019/2020 and 2020/2021 (i.e. completed a placement between March 2020 and the end of the academic teaching year in June 2021). Student cohorts were excluded if they had not completed a placement during COVID-19 (e.g. first year students in some courses) or if they were from other healthcare disciplines. Study participation was voluntary, and no incentives to participate were provided. Data was collected between February 2021 and June 2021 following an initial invite and two subsequent reminders. The potential participant sample was 436 students.

Data analysis

Data collected was analysed using both quantitative (descriptive and analytical statistics) and qualitative (thematic analysis) methods. Quantitative data analysis was performed within SPSS Version 26 and statistical difference was set at p < 0.05. To assess the participants' attitudes to completing WBP during COVID-19 a 4-point Likert scale was used.

Section 1: Demographics

This short section will help us find out about you and your stage in your university programme. All questions are anonymous

- 1. What is your gender? (Options: female/male/non-binary/prefer not to say)
- 2. What is your age? (Options: 18–23 years/24–29 years/30 + years)
- 3. What discipline/college course are you enrolled in? (Options: speech and language therapy/occupational therapy/physiotherapy/radiation therapy/social work)
- 4. What year of study are you in? (Options: 1st/2nd/3rd/4th/postgraduate)
- 5. Where did you complete a placement during COVID-19? (Options: acute hospital setting/primary care setting/disability setting/mental health setting/community setting/private practice/probation services/Tusla/other)
- 6. What was your living arrangement during your placement? (Options: lived with family, lived with friends, lived alone, other)

Section 2: Health and Safety

This section asks you questions about health and safety on your work-based placement. Please read the following statements and rate on a scale of 1 (strongly disagree), 2 (disagree), 3 (agree) and 4 (strongly agree) 7. I found the COVID-19-related information about Health and Safety provided by my Practice Education

Co-ordinator/Practice Education Lecturers in advance of my placement useful

- 8. I was concerned about undertaking a Health Risk Assessment associated with COVID-19 provided by my discipline in advance of placement (i.e. identifying whether you were in high risk or very high risk category) 9. I found the algorithm related to COVID-19 symptoms and what actions to take easy to understand and use (Occupational Therapy, Radiation Therapy and Physiotherapy only)
- 10. I found the COVID Trinity Live App for the presence/absence of COVID symptoms easy to understand and complete
- 11. Please feel free to comment about the Health and Safety information provided, Risk Assessment and/or the Trinity Live App: (free field comment box provided)
- 12. I was concerned about my own health and safety in advance of undertaking the work-based placement
- 13. I was concerned about my own health and safety during the work-based placement
- 14. I was concerned about my own health and safety after the work-based placement
- 15. I was concerned about the health and safety of my family in advance of undertaking the work-based placement
- 16. I was concerned about the health and safety of my family during the work-based placement
- 17. I was concerned about the health and safety of my family after the work-based placement
- 18. As a result of COVID-19, I was more stressed than I would usually feel about placement
- 19. Please list your top three main concerns in relation to health and safety with regards to placement in the text box below (free field comment box provided)

Section 3: Practice Education Support from College Department and Placement Site

This section asks you questions about support and advice you received from your college department and placement site for your work-based placement. Please read the following statements and rate on a scale of 1 (strongly disagree), 2 (disagree), 3 (agree) and 4 (strongly agree)

- 20. I felt prepared for my work-based placement by my college department and placement site
- 21. I knew who to contact in my college department and placement site for support and advice
- 22. The person to contact for support and advice was available to answer questions and concerns
- 23. I felt my concerns were addressed about my work-based placement by the person to contact
- 24. I felt supported my college department and placement site to undertake the work-based placement
- 25. Please list the top three useful supports you received from your college department and/or from your placement site (free field comment box provided)

Section 4: Professional Development and Learning Experience on your Work-Based Placement

This section asks you questions about your professional development and learning experience on your work-based placement. Please read the following statements and rate on a scale of 1 (strongly disagree), 2 (disagree), 3 (agree) and 4 (strongly agree)

- 26. My learning experience on my work-based placement was impacted by COVID-19
- 27. My ability to develop the necessary professional skills on my work-based placement was impacted by COVID-19
- 28. My confidence as a student health and social care professional was impacted by COVID-19

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Table 1. Anonymous online survey instrument

(continued)

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- 29. My ability to progress to the next year of college/graduate was impacted by COVID-19
- 30. The duration of my placement (no of weeks/days) was impacted by COVID-19
- 31. The length of my placement day (no of hours per day) was impacted by COVID-19
- 32. I missed days of placement due to COVID-19 related symptoms/being a close contact/waiting for a test result
- 33. The access to clients/service users/patients on my work-based placement was impacted by COVID-19
- 34. Opportunities to work with clients/service users/patients face-to-face on my work-based placement were impacted by COVID-19
- 35. My communication and relationships with clients/service users/patients were impacted by COVID-19
- 36. My sense of belonging to the service team in my work-based placement was impacted by COVID-19
- 37. The on-site and off-site learning activities on my work-based placement were impacted by COVID-19
- 38. The supervision and feedback processes from my supervisor were impacted by COVID-19
- 39. The assessment/grading processes by my supervisor were impacted by COVID-19
- 40. Please list the top three impacts/challenges of COVID-19 on your work-based placement: (free field comment box provided)
- 41. I learned new skills as a result of COVID-19 (e.g. telehealth skills, donning and doffing PPE, MDT working)
- 42. I gathered new knowledge as a result of COVID-19 (e.g. infection prevention and control; simulated case-based discussions)
- 43. I gained experience wearing Personal Protective Equipment (PPE) as a result of COVID-19
- 44. I feel more prepared for the workplace as a result of COVID-19
- 45. Please list the top three benefits of COVID-19 on your work-based placement: (free field comment box provided)

Section 5: Additional comments

46. Please provide any further comments you would like to add about your work-based placement during COVID-19: (free field comment box provided)

Table 1.

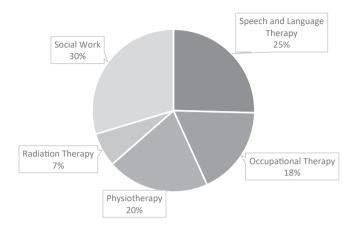
Each descriptive item was scored as follows: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree. To determine if there was an agreement with a statement, all individual scores for each item were added separately and then grouped to represent agreement or disagreement with a statement (Sullivan and Artino, 2013). One-way ANOVA tests were used to examine mean differences between survey responses and AHSW discipline and year of study. Spearman's correlations were conducted to determine the association between age and numerous variables (i.e. concern for own health, concern for family, feeling prepared for placement, gaining experiences with Personal Protective Equipment (PPE), gaining knowledge and feeling more stressed). Independent *t*-tests were conducted on two independent groups in relation to concerns about health and safety (i.e. group 1 who reported no change in concern across timepoints of before/during/after placement and group 2 whose concerns reduced over time). Pearson Chi square was conducted to determine the relationship between changes in concern after placement with age, and AHSW discipline.

For free field text data from six open comment questions (i.e. questions 11, 19, 25, 40, 45, 46 in Table 1), thematic analysis was applied drawing on Braun and Clarke's (2019) six-stage process which enabled the identification of patterns of meaning or themes across the data set. This facilitated an understanding of the shared meanings, perspectives and experiences of participants and helped to identify wider implications from student responses. Initial coding and analysis of qualitative data were conducted by two of the authors (SW & EOC), with all authors reviewing and refining the data until the key themes were confirmed (Braun and Clarke, 2019).

Findings

Participant characteristics

118 students participated in the study, indicating a response rate of 27%. Participants were spread across the six AHSW disciplines as illustrated in Figure 1.



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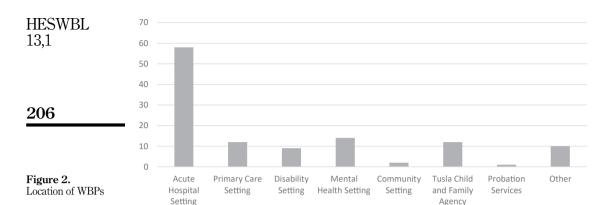
Figure 1. AHSW discipline of participating students

As detailed in Table 2, the majority of participants were female (93%), aged between 18 and 23 years (80%), living with family (54%) or friends (26%), and in their 3rd (53%) or 4th year (35%) of a four-year undergraduate programme (see Table 1). A smaller number of participants were male/non-binary (7%), 24 years of age or over (20%), living alone or with others (19%), and in 1st/2nd year (11%) or enrolled in a postgraduate course (1%).

Location of WBPs during COVID-19

The location of participants' WBPs was in a range of health and social care services (Figure 2). The most common location, representing almost half of the students, was in an acute hospital setting (n = 58.49%). The location of the other placements included: mental health setting (n = 14.12%); primary care setting (n = 12.10%); Tusla Child and Family

	n	Proportion
<i>Gender</i> Male Female Non-binary	6 110 3	5% 93% 2%
Age 18–23 24–29 30+	94 6 18	80% 5% 15%
Year of study 1st 2nd 3rd 4th Postgraduate	5 8 62 41 2	4% 7% 53% 35% 1%
Living arrangements Lived with family Lived with friends Lived alone Other	64 31 10 13	54% 26% Table 2. 8% Participant 11% characteristics



Agency (n = 12.10%); disability setting (n = 9.8%); community setting (n = 2.2%); probation services (n = 1.1%); and other (n = 10.8%).

Health and safety

82% agreed that they were more stressed than usual while on placement. Before the WBP began, 57% indicated they had concerns about their own health and safety and 73% expressed concerns for family members. As outlined in Figure 3, the concerns lessened during placement (55 and 67% respectively) and again after placement (27 and 48% respectively). Those who had a concern about their own health and safety *during* placement were also more likely to be concerned about the health safety of their families *before*, *after and during* placement. There was a significant relationship between increasing age of participants and elevated concerns about the health and safety of family members *before* (p = 0.008), *during* (p = 0.012) and *after* placement (p = 0.044) and that of their own health and safety (p = 0.009). Results from independent *t*-test between groups who had no concern and groups with reduced concern suggest that the only significant variable impacting reduction of concerns was "concerns were being addressed by the person of contact within the university department" (p < 0.022).

Support from university and placement site

Despite concerns about health and safety, over three-quarters (78%) felt prepared for placement (Figure 3). The majority knew who to contact for support and advice about placement (97%), agreed that this person was available (90%), felt supported to undertake placement (84%) and that concerns they had were addressed (84%). In addition, students were predominantly positive in relation to the health and safety information they received from the university. 90% of participants felt the information they were given was useful and 91% found the university app for submitting daily declarations of COVID-19 symptoms easy to understand and to complete. Most of the students (74%) who were required to follow a suspicion of COVID-19 algorithm, outlining the steps to follow if experiencing symptoms/close contact, found it easy to understand and complete. There were minimal differences identified between perceptions of health and safety and other variables such as AHSW discipline or other potential influencing factors.

Professional development and learning experience on WBP

As reported in Figure 3, participants predominantly agreed with statements that COVID-19 impacted their WBP (71%), learning activities (70%), ability to develop professional skills (55%) and their sense of belonging within a team (56%). Over half (55%) reported that their confidence was impacted by COVID-19. The greatest impact of COVID-19 appeared to be



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Figure 3. Participants' responses to survey questions

with their learning experience (81%), access to patients (75%), ability to communicate and form relationships with patients (75%) and opportunities to work face to face with patients (71%). Students who completed their WBP in an acute hospital setting were significantly less likely to agree with statements that COVID-19 impacted their access to clients (p = 0.019) or duration of placement, compared to placements in probation and community services. There

was a significant relationship between having a WBP in a disability service and two variables: impact of COVID-19 on sense of belonging (p = 0.018) and opportunity to work with patients face-to-face (p = 0.012).

For one-third of students, there was an impact on the daily hours (33%), number of weeks possible for their placement (38%), and the assessment grading and feedback processes while on placement (33%). A relatively small proportion of students (17%) had reduced placement time due to experiencing COVID-19 symptoms, being a close contact of a confirmed case of COVID-19 or waiting COVID test results.

Many students agreed that there were positive aspects within the learning environment such as: learning new skills (90%); developing new knowledge (88%); gaining experience in using PPE (79%); and feeling more prepared for the workplace (67%). There were no statistical differences between the former variables and WBP setting or AHSW discipline.

Findings from thematic analysis of free field text

Thematic analysis of free field text from students' responses to the six open comment questions supported the generation of four salient themes. The five themes capture the dataset "story":

Theme 1: "Regular and clear communication" – information provided and timely responses from a dedicated link person. This theme indicates that the quality and frequency of communication from college was a significant factor for students in achieving clarity, alleviating stress and feeling supported. Students identified good communication and responsiveness of the university among the top three supports received during their WBP:

Timely responses from college when I had a query or concern

Open communication with department and fast responses if there were any issues

Information in relation to changes to placement structures or policies that was clear and accurate was also identified as a key support that was valued by students. When discrepancies in information arose, this led to feelings of stress and uncertainty. Students frequently identified an individual staff member from college or their placement site who assumed a liaison role which was experienced as very supportive by students. Absence of this proactive outreach and regular check-ins resulted in difficulties raising issues of concern.

Placement tutor was a great support and was in constant contact offering support, advice and reassurance

A check-in with how placement was going in light of the pandemic would have been very helpful as it can be intimidating to initially bring up any issues yourself

Theme 2: "Always aware that I had to both protect myself, clients and other staff" – Students' awareness of risks of COVID-19. This theme suggests that contracting the virus or transmitting the virus to others was a significant fear for most students. Repeatedly across the data collected, there was also a strong sense that students were often "other focused", demonstrating a propensity to think beyond their own health, needs and well-being to that of their patients, colleagues, families or those they lived with:

I truly had a fear of becoming critically ill with the virus or even being disabled from it

Being exposed to COVID-19 on placement and putting my housemate at risk

In addition, the need for constant vigilance in relation to COVID-19 and the added infection prevention and control protocols were also a significant source of stress. In particular, where students attempted to ameliorate the risk by maintaining distance with family or friends.

The pressure on my mental health. The burnout of constantly being aware of COVID-19

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Many respondents commented on using the bespoke College App to complete the mandatory daily self-declarations that they were free of COVID-19 symptoms before attending their during COVID-19 WBP. While many indicated that the College App was helpful and easy to use, others considered it a duplication of existing protocols or conflicting with the specific requirements or the WBP site. Remembering to complete the self-declarations on the app each day and the negative consequences of missing a check-in was a source of anxiety in "an already stressful placement situation".

For others, environmental factors in the WBP setting that may have increased risk of exposure to the COVID-19 virus led to anxiety. For example, "the number of positive cases within the setting", difficulties maintaining physical distancing ("lack of office space") and commuting ("using public transport"). However, for other students, fears were ameliorated through information and safety measures implemented.

At the same time, I felt we were provided with a lot of information how to protect ourselves. Also, safety measures in the workplace was at a high standard

Theme 3: "Missed out on learning opportunities" – impact on learning and sense of belonging. This theme indicates that attending a WBP during a global pandemic had a negative impact on respondents' learning opportunities at times. Reduced staff numbers meant that the practice environment was quieter and some students developed better supervisory relationships with PEs. However, other students believed the restrictions on staff numbers resulted in a reduction in potential learning opportunities:

probably missed out on learning opportunities such as team or family meetings, as there could only be a certain amount of people present.

Opportunities for shadowing practitioners were also reduced for several respondents as many consultations were being held via telephone or online. Furthermore, it was indicated that physical distancing requirements and online meetings negatively impacted upon some students' sense of belonging to the AHSW team and that it was "more difficult to get to know who each member of the team was".

Theme 4: "We had to adapt" - the importance of flexibility in the work environment. This theme centres on respondents' perspectives across the AHSW disciplines that undertaking their WBP within the context of a public health crisis created the need to change their practice to suit an altered working environment. For example, students reported that they adapted their communication style and became more creative to compensate for the use of PPE or other altered methods of working with patients.

We developed better communication skills as it was often hard to talk to patients through PPE so we had to adapt

It made me more creative when working with my clients

Some participants made the link between adapting practice and increased preparation for the workplace post qualification. For example, developing skills in remote working, such as telehealth, supported the students to develop skills in working independently and increased their self-confidence.

I got the experience working for Tusla during a level 5 lockdown, who knows what it will be like when I get a job. I know I can adapt.

I learned more independence in placement as I was always in a different room to my practice educator and could not ask small questions

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Discussion

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This study evaluates the perspectives of AHSW students in relation to their WBP experiences during the COVID-19 pandemic. Comparing the opinions of students from these professions across a diverse range of WBP locations and specialities provides a unique observation of students' viewpoints during this crisis. Findings from this study suggest that although there was widespread disruption in the learning environments, a wraparound supportive framework composed of three elements helped to ensure positive WBP experiences and student success for the majority of AHSW students during COVID-19: (1) university preparation and communication; (2) placement site and supervisor support; and (3) students' resilience and capacity to adapt to a changed work-place environment.

Disruption to the WBP learning environment

The real-world experience of professional interactions in the workplace is an important part of developing students' professional identity and clinical competency (Joynes, 2018). This study confirms the reports of others that there was extensive disruption to the WBP environment for students during COVID-19 (Rossi and Maci, 2021; Slanetz et al., 2020). Approximately threequarters of students signified that their professional learning and interactions with patients was affected, while over half of students agreed that their ability to build professional skills and develop a sense of belonging to the team was impacted. There were minimal differences between perceptions of students from the five AHSW disciplines, but variances did emerge depending on the location of the WBP. The learning environment in the acute hospital setting appeared to adapt more to the COVID-19 context than other WBP settings, such as disability settings. Based on students' responses across the AHSW disciplines, acute hospital settings demonstrated greater ability to ensure student integration into the multi-disciplinary team and maintain levels of student learning during the pandemic. This may have been because of reductions in placement time imposed by non-acute hospital sites, who in line with public guidance restricted face-to-face appointment-based services, increased remote working and switched to online meetings. For example, the National Health and Social Care Professionals Office (2021) documented the rapid transition to teletherapy services and tele-supervision amongst AHSW disciplines in community services. This disruption to student learning mirrors fears expressed by nursing students who anticipated their professional and clinical competency development on WBPs during COVID-19 would be hampered by reduced availability of patients and staff (Kuliukas et al., 2021; Ulenaers et al., 2021).

In addition to the impact on learning opportunities, participants were highly alert to the risks of COVID-19 to themselves and others during the WBP, regardless of the location. However, concerns reduced over time. Changes to the WBP learning environment, fears for the health and safety of themselves and family members, and a perception of being constantly alert to risks and adhering to new policies may have been responsible for the finding that over four-fifths of students reported being more stressed than usual on WBP during COVID-19. Students' self-imposed measures to reduce risk of transmission to family and friends appeared to exacerbate some participants' stress, for example, through isolation, physical distancing, and increased infection and prevention protocols. Conversely, for other students, such measures coupled with regular communication and reassurance from practice education teams reduced feelings of stress. Apprehension in relation to health and safety echo the perspectives of students in nursing, midwifery, radiography and medicine who expressed fear of contracting the virus and subsequently infecting family members (Rainford et al., 2021; Tay et al., 2020). Of concern, increased student stress may negatively impact on learning, professional performance and provision of care (Delany et al., 2015). Moreover, stress has been associated with increased risk of failure and attrition from university (Doggrell and Schaffer, 2016).

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Although many students reported challenges during placements, the majority of participants reported that they continued to develop the required professional skills during the pandemic WBP, with two-thirds suggesting that their readiness for the workplace was enhanced. Halbert *et al.* (2020) also reported increased student preparation for the workplace by completing a placement during COVID-19. Similar to the perspectives of medical students who believed WBP during COVID-19 would enhance their learning opportunities (Choi *et al.*, 2020), 88–90% of AHSW students in this study reported benefits in relation to developing new knowledge and skills such as improved communication skills, enhanced creativity and experience using online technologies.

A triad of individual and systemic supports emerged from the data that appeared to help reduce the negative impact of COVID-19 on students' learning and wellbeing and support students' potential to benefit from new knowledge, skills and attitudes resulting from the pandemic as will be discussed below.

(1) University preparation and communication

Preparation for placement enables students to maximise their participation in learning, providing them with a sense of shared responsibility and facilitating a better understanding of the work-based experience (Chipchase *et al.*, 2012). Quantitative and qualitative findings from this study confirmed that students felt prepared and supported during their WBP which alleviating stress and concerns. Practice education team members provided pre-placement workshops and guidance to students to prepare them for new infection prevention and control measures, telehealth and novel physical distancing arrangements within the workplace. The former factors highlighted in this study reinforce the need for a robust university-based preparatory module in advance of WBPs (Ulenaers *et al.*, 2021) and the importance of contingency planning and systemic flexibility to adapt to future emergency or changing contexts (Fleener, 2021).

(2) Placement site and supervisor support

Moreover, positive WBP experiences during COVID-19 may have been due to the mindset, skill and commitment of the placement site staff. Practice tutors and practice educators continued to supervise students in the clinical learning environment during a pandemic, while juggling all the other workplace demands and managing their own stress (Halbert *et al.*, 2020; Rose, 2020). In line with the recommendations proposed by Shanafelt *et al.* (2020), students' anxiety and fears appeared to be eased when they were heard, protected, prepared, supported and cared for by the organisation where their WBP was based, in addition to the support received from their university department.

(3) Students' capacity to adapt to a changed work-place environment.

Healthcare workers and students are required to manage the physical, psychological and emotional burdens of a public health crisis during work-based learning (Wald, 2020). Capacity to adopt an optimistic and proactive approach to their WBP in the COVID-19 context, such as re-construing infection control restrictions into opportunities for new learning through creativity and showing flexibility to ensure continuity of high standards of care, is evident in the results. Students used their ingenuity and initiative adjusting to new clinical practices and technological solutions to deliver remote patient care, enhancing their digital capability and work-readiness for modern healthcare delivery. Attributes of empathy and emotional strength were evident creating challenges and also opportunities for emotional growth. Medical students also expressed a professional responsibility and internal motivation to continue with placements and high standards of care during the pandemic (Compton et al., 2020). Student flexible responses may have buffered the potential negative

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impact of a challenging work-based environment and helped to reduce stress levels and elucidate strengths (Wald, 2020).

Conclusions

Students' voices are central to the quality assurance of WBP experiences and identifying ways to enhance and optimise student learning (Quigley et al., 2020). This inter-disciplinary study reports the WBP experiences from five AHSW professional education programmes during the COVID-19 pandemic, giving a unique view of their perspectives and learning during this unprecedented crisis. Despite the disruption and impact of the crisis on students' learning and well-being they responded with flexibility and compliance across all disciplines. A triad of individual and systemic supports seem to help to ensure student success and well-being was buffered from the impact of COVID-19 for many students and provides a useful framework for other disciplines and other universities to adopt during COVID-19 and any future unexpected disruptions to WBPs. Additional research is warranted to extrapolate further the necessary components and practical applications for each element of this supportive triad, to ensure a holistic and feasible contingency plan for future WBPs. Consideration of the possible contribution of the principles of trauma theory (Herman, 1992) may also bolster elements of the triad and help mitigate potential future negative impacts for students and educators.

The five AHSW professional education programmes across the university worked collaboratively to provide and implement a cohesive response to supporting and providing WBPs for students during the pandemic. This distinctive collaboration established a community of practice which fostered the opportunity to share knowledge and experiences and ensure consistency across the programmes in relation to the development of policies, procedures, new placement models and a triad of supports which ensured student success and well-being. Continued and supported inter-professional practice of this nature is recommended for other universities to ensure cohesiveness across AHSW programmes and high-quality educational experiences for students when major emergency disruptions arise in the future. The findings from this study which share student experiences may also assist future student cohorts, building on processes and educational experiences delivered by many universities to provide best practice support, communication and preparation for students as they enter the WBP of their chosen profession.

Limitations

There are several limitations to this study. First, the participants were students of five AHSW disciplines in one university setting, whose WBPs were predominantly in an Irish healthcare setting. It is possible that their views would not be representative of students in other disciplines or different jurisdictions. Second, most respondents were female (93%), potentially introducing a gender bias. However, the high ratio of females is reflective of the make-up of the AHSW professional workforce. Third, data collected was based on WBPs completed in the height of the COVID-19 pandemic (i.e. March 2020–June 2021), which includes periods of time up to 14 months before COVID-19 vaccination was available. This may have added to reports of increased student stress and anxiety. Fourth, this study reflects the perspectives of students only. Triangulation with other data sources (e.g. practice educators, supervisors, managers, university staff who coordinate placements) may have supported increased rigour and illuminated additional interpretations (Baskerville, 2014).

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Supplement material

The supplementary material is available online for this article.

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