


Undergraduate Nursing Students Experience in COVID-19 Vaccination Centres

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Abstract

Aim: To explore the undergraduate nursing student's experience of placement in the COVID-19 Vaccination Centres in South-Western Sydney. **Design:** Observational cross-sectional study. **Methods:** Undergraduate nursing students who undertook clinical placements in the COVID-19 Vaccination Centres in a major Sydney Local Health District were invited to participate in the study. Data was collected via surveys containing placement evaluation tool—19-items (rated on a 5-point agreement scale) and one global satisfaction rating (a 10-point scale). The survey also included three open-ended questions regarding positive and negative impacts of the placement in the Vaccination Centres. Quantitative data from the surveys were analysed descriptively using SPSS software. The responses to the open-ended question were analysed using a thematic analysis approach. **Results:** A total of fifty-two undergraduate nursing students responded to the survey. A variation in the overall satisfaction with the placement was observed among students. Only 44% scored their experience above 5 (10-point scale). Data obtained from the open-ended survey questions reflect the following themes: learning experience, challenges, potential opportunities for clinical practice and suggestions for improvement. Some of the suggestions for improvement to future placements were more in-service training, rotation through different tasks and advertising the sort of skills that students

will be offered to learn during placement. **Conclusions:** The study outcome provides an insight into the undergraduate nursing student's placement experience in the COVID-19 Vaccination Centres and highlights the areas for improvement to further enhance the student's placement experience when serving at the Vaccination Centres. **Implications for the Profession and/or Patient Care:** This study provides insight into the undergraduate nursing student's placement experience in the COVID-19 Vaccination Centres. The findings of this study will assist in improving the nursing students' experience when working in similar settings by making appropriate modifications to the processes and procedures. **Impact:** Clinical placement is an essential requirement for nursing students' professional development and COVID-19 pandemic is reported to have a noticeable impact on their placement experience. There is limited information on the undergraduate nursing student's placement experience in the COVID-19 Vaccination Centres. This study was designed to explore the undergraduate nursing student's experience of placement in the COVID-19 Vaccination Centres. The findings from the study highlight challenges encountered by the students and the areas for improvement to enhance the students' experience for future workforce planning and education and training arrangements. **Reporting Method:** This study adheres to "The Strengthening the Reporting of Observational Studies in Epidemiology Statement: Guidelines for Reporting Observational Studies" from the Equator network. **Patient or Public Contribution:** Participants were undergraduate nursing students who undertook clinical placements in the COVID-19 Vaccination Centres in South-Western Sydney Local Health District. They did not contribute to the design or conduct of the study, analysis or interpretation of the data, or in the preparation of the manuscript.

Keywords

COVID-19, Placement, Undergraduate Nursing Students, Vaccination Centre

What does this paper contribute to the wider global clinical community?

- Provides an insight into the undergraduate nursing student's placement experience in the COVID-19 Vaccination Centers.
- Highlights challenges encountered by the students and the areas for improvement to further enhance the student's placement experience when serving at the Vaccination Centres.

1. Introduction

Coronavirus disease 2019 (COVID-19) is a respiratory illness caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). On 22 February 2021, in response to the COVID-19 pandemic, a mass-vaccination approach was adopted and rolled out in Australia. The rollout was carried out in phases, with population groups prioritised according to Australian Technical Advisory Group on Immunisation (ATAGI) advice. As of now, 66.5 million total vaccine doses have been

administered in Australia, with the highest proportion of vaccinated individuals in NSW (20,610,802) (AGDHA, 2023). Over 95% of the Australian population aged 12 and over are now fully vaccinated.

To achieve the goal of herd immunity, undergraduate nursing students in Australia were allocated clinical placements in the Vaccination Centres. Clinical placements are a core component of nursing education. Nursing students in Australia undertake a minimum of 800 hours of clinical placements. These placements occur in a variety of clinical settings and provide students the opportunity to connect theory and practice in an authentic setting, further develop knowledge and skills and begin socialisation in the profession (Atakro et al., 2019; Rojo et al., 2020). The undergraduate nursing students' allocation in the Vaccination Centres assisted in supporting the existing over-stretch workforce and allowed students to meet their clinical placement requirements.

The COVID-19 pandemic is reported to have a noticeable impact on students' clinical placement experience (Alshahrani et al., 2018; Rasmussen et al., 2022). To improve the quality of the clinical placement experience, studies have been conducted globally to investigate the clinical placement (mostly in the hospital setting) experience of students during COVID-19 pandemic. However, the experience varies considerably (Alshahrani et al., 2018; Cushen-Brewster et al., 2021; Rasmussen et al., 2022; Barisone et al., 2022). The quality of placements is reported to be influenced by environmental, organisational, relational and individual factors (Cooper et al., 2020; Bøe & Debesay, 2021; Luders et al., 2021).

Several studies worldwide have explored students' experiences in COVID-19 Vaccination Centres (Carey & Kies, 2022; Sherratt et al., 2022; Joy et al., 2022; Thornton et al., 2022; Handzel, 2022; Villa et al., 2022). Overall, despite some challenges, placement in Vaccination Centres has provided many students with unique learning opportunities. In a study highlighting the lived experience of a group of Italian third-year nursing students during the COVID-19 vaccination campaign, students emphasized the positive aspects of having the opportunity to participate in the vaccination campaign and help the entire community in the fight against COVID-19. The main themes that emerged were a challenging experience, it is not as easy as it seems, a learning experience worth living, and teamwork and trust leading to professional development (Villa et al., 2022). In an evaluation of a multischool collaborative COVID-19 vaccination project, nursing students reported that experience of placement in the vaccination project influenced their perspectives on nursing, fueling their passion and informing future career choices; they also highlighted growth in their nursing skills (LeClair & Zahner, 2023). Similarly, in other studies, nursing students expressed improvement in knowledge and clinical performance (Thornton et al., 2022) in different areas of the vaccination centre (Joy et al., 2022).

In the Australian setting, a number of studies have been conducted to explore the impact of COVID-19 on psychosocial well-being and learning for nursing students (Luders et al., 2021; Wynter et al., 2021; Rasmussen et al., 2022; Usher et al.,

2023). However, there has been a very little description of students' clinical placement experiences during the COVID-19 pandemic (Luders et al., 2021; Rasmussen et al., 2022), especially in the vaccination centre. Therefore, this study was undertaken to gain an understanding of the experience of the undergraduate nursing students on their placement at the Vaccination Centres.

2. Methods

2.1. Aims

This study aimed to explore the nursing students' experience of placement in the COVID-19 Vaccination Centres.

2.2. Study design

This observational cross-sectional study was conducted in 2021 to evaluate the students' experience of placement in the COVID-19 Vaccination Centres.

2.3. Study setting

South Western Sydney Local Health District (SWSLHD).

2.4. Participants and Recruitment

The study involved a purposive sample of consecutive students from Western Sydney University (WSU), who undertook clinical placements in the five COVID-19 Vaccination Centres [South Western Sydney, Bankstown, Prairiewood, Ngara (Liverpool), Macquarie Park] in 2021. The online survey was created via REDCap and distributed to 627 students. Invitations to complete the survey were sent by the University's Student Administration Department using the students' university email address. The email invitation included a brief description of the survey, the Plain Language Statement (PLS), and a link to access the survey. A reminder email to complete the survey was sent approximately two weeks after the initial invitation. Participants were advised that submission of the survey indicated consent to participate.

2.5. Data Collection

Data were collected via surveys. The survey comprised the Placement Evaluation Tool (PET) (Cooper et al., 2020). The PET was found to be valid, reliable, and feasible across a range of measures in a study conducted in Australia (Cooper et al., 2020; Luders et al., 2021). A Likert scale was used to rate the items about the experience of participants in the Vaccination Centre. The tool included 22-items (rated on a 5-point agreement scale from "strongly disagree-1" to "strongly agree-5") covering the domains of "Clinical Environment" and "Learning Support" and one global satisfaction rating (a 10-point scale, rated 1 "very dissatisfied" to 10 "extremely satisfied"). The tool was slightly modified to collect additional information in this study. Three extra items were added to the tool: "I was satisfied with the Public Health response to the pandemic"; "I feel as a nursing student I

was well prepared for the pandemic”; “I would choose the Vaccination centre as a future clinical placement.” The survey also contained three open-ended questions regarding positive and negative impacts of the placement in the Vaccination centres. The questions were “What worked well?”, “What didn’t work?” and “The key learnings.”

2.6. Data Analysis

Quantitative data from the surveys were analysed descriptively using IBM Statistical Package for the Social Sciences (SPSS), Version 29. The qualitative data obtained from open-ended survey questions was analysed using a thematic analysis approach (Braun & Clarke, 2006). Once all responses were coded and the patterns were identified, the codes which shared a common pattern were grouped together as overarching themes.

2.7. Ethical Considerations

The approval for this study was obtained from South Western Sydney Local Health District Human Research Ethics Committee (2021/ETH11746). Participants were advised that submission of the survey would be considered formal consent to participate. Participation was strictly voluntary, and all the participants were informed that their decision to participate or withdraw would not affect their current or future relationship with the Local Health District.

3. Results

Fifty-two (8.3%) students responded to the online survey. Students were from the second and third year (Table 1) of an undergraduate nursing degree from WSU. Students were required to complete 80 hours during two weeks of placement in the vaccination centres, and all the mandatory vaccination modules had to be completed prior to placement.

Table 1. Characteristics of nursing student sample (n = 52).

Variables	
Age (in years)	
Mean (SD)	30 (9.92)
Median [Min, Max]	25.5 [20, 55]
N (%)	
Sex	
Female	45 (86.5)
Years of Study	
2nd year	22 (42.3)
3rd year	30 (57.7)
Vaccination Centre	
South Western Sydney Vaccination Centre	31 (59.6)

Continued

Bankstown Vaccination Centre	5 (9.6)
Prairiewood Vaccination Centre	7 (13.5)
Ngara (Liverpool) Vaccination Centre	4 (7.7)
Macquarie Park Vaccination Centre	5 (9.6)
Shift Length	
8 hours	16 (31.4)
10 hours	18 (35.3)
12 hours	18 (35.3)

3.1. Cronbach's Alpha

The Cronbach's alpha was calculated to measure the internal consistency of the items (Table 2). The Cronbach's alpha value obtained for factor "Clinical environment" was 0.95 and 0.97 for "Learning support", overall value combining the two factors was 0.98, indicating a high level of internal consistency.

Table 2. Nursing student experience during placement—summary PET ratings (n = 52).

		Mean	SD
Factor 1: Clinical Environment			
1	I was fully orientated to the vaccination area	3.8	1.3
2	Staff were willing to work with students	3.5	1.2
3	Staff were positive role models	3.6	1.2
4	Staff were ethical and professional	3.8	1.1
5	Staff demonstrated respect and empathy towards patients/clients	3.8	1.0
6	Patient safety was fundamental to the work of the centre(s)	3.9	1.2
7	I felt valued during this placement	2.9	1.5
8	I felt safe in the clinical environment (e.g., physically, emotionally, culturally)	3.6	1.3
Factor 2: Learning Support			
9	This placement was a good learning environment	2.8	1.5
10	My supervisor(s) helped me identify my learning objectives/needs	3.3	1.4
11	I was adequately supervised in the clinical environment	3.4	1.4
12	I received regular and constructive feedback	2.9	1.4
13	I was supported to work within my scope of practice	3.7	1.3
14	My supervisor(s) understood how to assess my clinical abilities	3.5	1.4
15	I had opportunities to enhance my skills and knowledge	3.0	1.5

Continued

16	I had opportunities to interact and learn with the multi-disciplinary team	2.9	1.5
17	I achieved my learning objectives	3.2	1.5
18	I have gained the skills and knowledge to further my practice	3.3	1.4
19	I anticipate being able to apply my learning from this placement	3.3	1.5
20	I was satisfied with the Public Health response to the pandemic	3.6	1.1
21	I feel as a nursing student, I was well prepared for the pandemic	2.9	1.5
22	I would choose the vaccination centre as a future clinical placement	2.4	1.6
Global rating (1-to-10-point scale)			
23	Overall, I was satisfied with this placement experience	5.4	3.0

3.2. Placement Evaluation Tool (PET) Results

Twenty-two items were rated on a scale of 1 to 5 and the final global rating was from 1 to 10, with a potential score ranging from 23 to 120 (Table 2). The total PET score (22 items) shows a mean rating of 73.1 [average of (average response to each item \times 22)] from a maximum of 110 (22 items \times 5 scales in each item). Out of the two factors in the survey tool, "Clinical environment" had a mean rating of 79.3 with higher rating for the "staff attitude towards students" and lowest for "feeling valued". For the other factor "Learning support", the mean rating was 69.5 with higher ratings for the item "supported to work within my scope of practice" and lowest for "choosing the Vaccination Centre as a future clinical placement".

Majority of the students strongly agreed/agreed they were fully orientated to the clinical area (73%, 38/52) and received good support from the staff: Staff were willing to work with students (65.4%, 34/52); Staff were positive role models (63.5%, 33/52); Staff were ethical and professional (69.2%, 36/52); Staff demonstrated respect and empathy towards patients/clients (76.9%, 40/52). Nearly 60% (31/52) of the students strongly agreed/agreed that they felt safe in the clinical environment and were supported to work within their scope of practice (67%, 35/52). They were adequately supervised in the clinical environment (53.8%, 28/52) and their supervisor(s) understood how to assess their clinical abilities (63.5%, 33/52). (Figure 1)

A higher percentage of disagreement (Strongly disagree/disagree) was observed for items: I felt valued during this placement (44%, 23/52); This placement was a good learning environment (52%, 27/52); I received regular and constructive feedback (48%, 25/52); I had opportunities to interact and learn with the multi-disciplinary team (52%, 27/52); I feel as a nursing student I was well prepared for the pandemic (44%, 23/52); I would choose the vaccination centre as a future clinical

placement (57%, 30/52).

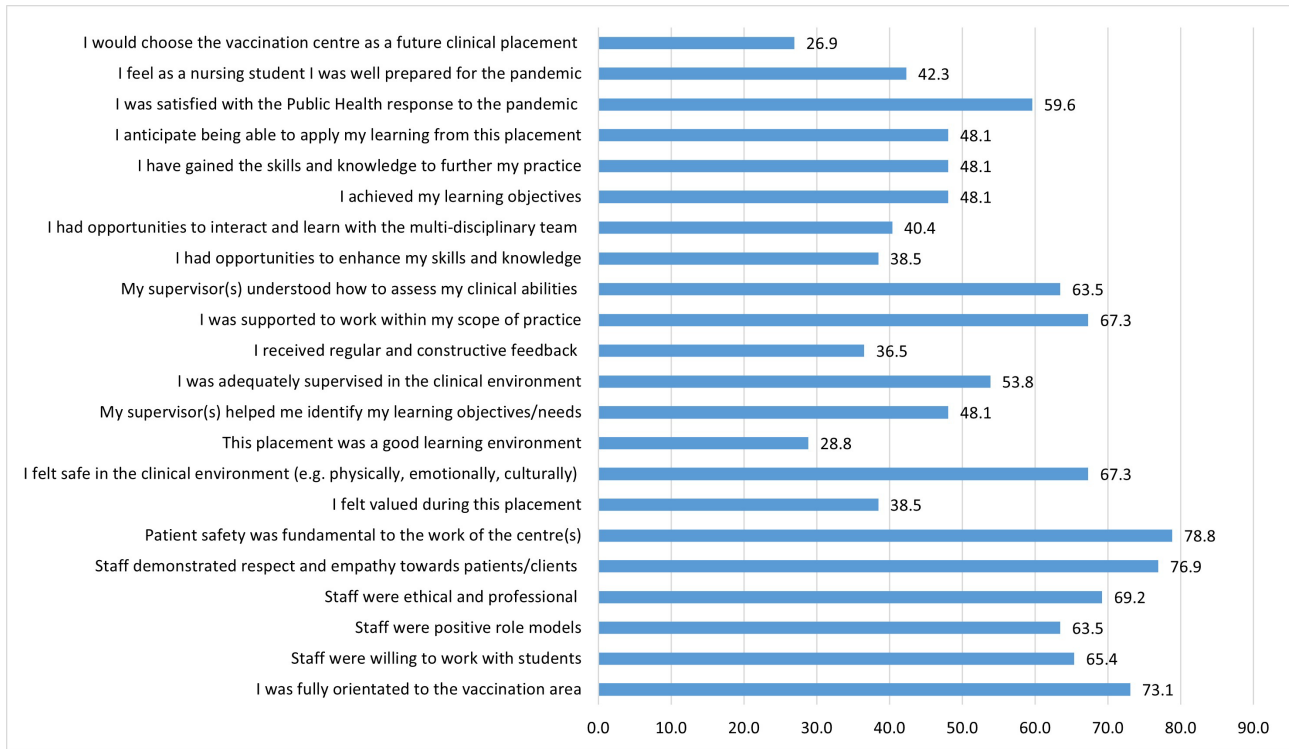


Figure 1. Percentage (%) of students strongly agreed/agreed with different domains of clinical environment and learning support during the placement at vaccination centre (N = 52).

The participants’ overall satisfaction with this placement experience varied scores ranged between the scales of 1 to 10. Out of 48 responses, 21 participants (44%, 21/48) scored their experience within 7 to 10, four (8%) of them were extremely satisfied (score 10) with their placement. 27 participants scored their satisfaction level as 1 to 5, and three of them were very dissatisfied (score 1).

3.3. Qualitative Data Analysis

Data obtained from the open-ended survey questions provides additional information on experience of participants during the placement. Four core themes emerged summarizing respondents’ placement experiences: learning experience, challenges, potential opportunities for clinical practice and suggestions for improvement. (Figure 2) They are summarised in the following paragraphs.

1) Learning experience

The students acknowledged that the placement was well organized, coordinated, and structured. The orientation and training during the placement were appropriate and adequate. Some students perceived this placement as an opportunity to learn and practice various clinical skills during a short duration of time. They acquired confidence in drawing vaccines and giving injections, and learnt about needle safety and how to prevent needle stick injuries. Other than vaccination

Core Themes	Subthemes (Second order categories)
Learning experience	<ul style="list-style-type: none"> • Improved Clinical skills • Enhanced Communication and interpersonal skills • Opportunity to work as a part of team and independently
Challenges	<ul style="list-style-type: none"> • Role expectation • Long shift hours • Monotonous nature of work
Potential opportunities for clinical practice	
Suggestions for improvement	

Figure 2. Core themes and sub-themes from open-ended survey questions.

they also had the opportunity to participate in different areas of the Vaccination Centre operations including screening, post-vaccine monitoring for any adverse effect, patient anaphylactic assessment, medication checks, symptom management, signing off, cold chain management and documentation of vaccine administration.

“Switching between admin, vaccination and observation roles was quite useful in getting experience in different parts of the vaccination experience, and the training was quite good, being paired with nurses until we were comfortable with administering vaccines ourselves.” (Participant 34)

“We were given the benefits in having the chance to practice and utilise our skills and knowledge and put it in action. It has boosted my confidence with handling needles, being aware and cautious for needle stick injuries and implementing 5 rights to medication.” (Participant 47)

Students felt that it was beneficial in terms of improving communication and interpersonal skills. They had the opportunity to communicate with diverse range of people. They became more confident in terms of managing individuals with anxieties. Some of them mentioned that they learned how to effectively communicate with consumers from culturally and linguistically diverse (CALD) background utilising the interpreter service.

“I also felt my people skills developed further, particularly with reassuring hyper stressed patients.” (Participant 34)

“The vaccination centre allowed me to practice independently with a senior nurse close by to ask for assistance when required. I perfected the skill of IM injections. I also learned how to effectively communicate with consumer’s from CALD background utilising the interpreter service.” (Participant 47)

Students had the opportunity to work with the experienced team, better understand organization and division of labour at the Centre. Students acknowledged

that they were very well supported by the staff and felt as a part of the team during their placement. The staff was understanding with regards to the fear of the students at the beginning and supported them with the training of various skills. Apart from working as a part of the team, students also mentioned that they had the opportunity to practice independently under the supervision of a senior nurse.

“I felt I were the lucky one that I had an opportunity to do IM. Some staff are really nice and helpful, such as an on-site manager, mental-health manager and other RNs. My facilitator said the clients were satisfied with my performance.” (Participant 32)

“We were able to act quite independently, building skills with confidence and skills that normally would not be found on a regular ward placement” (Participant 2)

2) Challenges

Student’s expectation from their placements in the Vaccination Centre was recognized as one of the challenges to placement. Most of the students’ expectation was to learn and apply various clinical skills. However, they felt that there was no clarity around what they were expected to do in their role. Some of the students stated that they were exploited and used as a free labour, as they had to do non-clinical work such as crowd controlling, marshalling and helping with administrative work.

“Everything else. I’m not a crowd controller, I’m a student. We were just being used for slave labour. This should have been a paid placement. The bulk of our time was spent on non-clinical work that other people were getting paid for.” (Participant 30)

“I was there to learn, not to work as crowd control. Absolutely pointless, learned nothing except IM injections and that I would never work in a vax clinic.” (Participant 20)

Long shift hours (12 hours) were also identified as a challenge by many students. At times, it was really busy, putting a lot of pressure on the students, and they got really tired from sitting for hours and giving injections all day. On the contrary, some felt it was slow paced as there were not many people coming for vaccination at their Centres. The task was repetitive at times which made it boring and monotonous.

“Sitting for 12 hours straight, giving injections doesn’t allow for much of a positive experience. And the weeks that I was there was right at the peak, so I was giving up to 130 immunisations a day, so you literally didn’t move other than morning tea and lunch and afternoon tea you didn’t move.” (Participant 18)

“Once our skills and clinical abilities in the vaccination hub were assessed, there wasn’t much more enhancement to learning. It was very repetitive and most of the long 12 hours days, I personally thought were wasteful.” (Participant 4)

3) Potential opportunities for clinical practices

Some students felt that the placement in the Vaccination Centres provided them with potential opportunities to learn various skills. However, the placement

was very restricted in terms of growth, and not many nursing skills were applied in terms of what the facility allowed. They were mostly administering vaccines and missed a good chance to learn other clinical skills. They noted that there was hesitation in the staff in allocating certain tasks and fear of students making mistakes, which caused them to have to observe or just continue the same task. The participants expressed a strong desire for more in-service training and rotation through different tasks.

“As a third-year student placed in a vaccination hub, I felt I needed much more from my placement than what the hub could provide. I needed to hone a vast array of skills while the hub only catered to me practicing only a handful of skills, most of which being non-clinical.” (Participant 11)

“Sitting at the station for 12 hours and not being rotated through different roles is a manual handling risk and mind numbing. After doing 130+ vaccines per day you get over it pretty quick. As AINs were involved in preparing vaccinations and the cold chain section, I think it would have been valuable as students to have experience in that area.” (Participant 34)

Suggestions for improvement to future placements

The students expressed a strong desire for more in-service training, and rotation through different tasks so that all students could have the opportunity to learn other skills apart from injections. They also suggested advertising the sort of skills that students would be offered to learn so that they had more clarity around their role and what to expect from the placement.

4. Discussion

This study aims to explore the undergraduate nursing student’s experience of placement in the five COVID-19 Vaccination Centres. A variation in the overall satisfaction with the placement in Vaccination Centre was observed among the students. Only 44% scored their experience above 5 (10-point scale). Similar to other studies, despite some challenges (student’s expectation from their placements, lack of clarity around their role, long shift hours, monotonous nature of work) students (29%) considered their placement a great opportunity to learn and exercise their clinical, communication and interpersonal skills and build up their confidence (Cushen-Brewster et al., 2021; Carey & Kies, 2022; Sherratt et al., 2022; Joy et al., 2022; Thornton et al., 2022; Villa et al., 2022; LeClair & Zahner, 2023). They had the opportunity to participate in different areas of the Vaccination Centre operations including screening, IM injections, post-vaccine monitoring for any adverse effect, patient anaphylactic assessment, medication checks, symptom management, signing off, cold chain management and documentation of vaccine administration. They also improved their communication and interpersonal skills.

Likewise, many studies have demonstrated growth in the skills of nursing students as a result of their placement, including providing public health education, clinical skills, and working on an interprofessional team, increased utilization of therapeutic communication strategies, such as providing emotional support, health

education (LeClair & Zahner, 2023), improvement in assessment skills while evaluating for allergies and monitoring the patients, providing patient education on the possible adverse effects and when to return for their second dose (Joy et al., 2022), administration of medicines, knowledge of the Mental Capacity Act, and development of core skills such as communication and teamworking (Thornton et al., 2022).

The survey data shows hesitation in students in choosing the Vaccination Centre as a future clinical placement. Some of the factors restricting students from choosing the Vaccination Centre as a future clinical placement were not feeling valued, learning environment, opportunities to interact and learn with the multi-disciplinary team, regular and constructive feedback, preparedness before commencing placement and support in learning from their supervisor. It has been recognised that for effective clinical learning and quality placement experience students should be adequately prepared for placement (Cant et al., 2021). There should be clear communication about placement arrangements and what to expect while on placement to ease placement anxiety (Alshahrani et al., 2018). During the placement, elements such as structuring the placement, conducting orientation, and appointing preceptors are considered beneficial for enhanced learning (Birks et al., 2017).

Several studies have identified supervisory relationship, mentorship and inclusion in teams as salient factors that influence students' perceptions of the quality of the learning environment (Gill Meeley, 2021; Cant et al., 2021; Abuosi et al., 2022). Some students in our study felt that their contribution or work was not recognised and valued at times. Similar themes were reported in a study by Villa et al. (Villa et al., 2022). Staff support and their attitude towards the students have a considerable impact on the learning and overall placement experience (Aghaei et al., 2021; Luders et al., 2021). Like other studies, the students in our study acknowledged that they were very well supported by the staff and felt like a part of the team during their placement and simultaneously got the opportunity to practice independently under the supervision of senior staff which made them more confident and responsible (Cushen-Brewster et al., 2021; Thornton et al., 2022; Villa et al., 2022; LeClair & Zahner, 2023). On the contrary, some students were not satisfied with the learning environment of the Vaccination Centres and reported a lack of regular and constructive feedback and opportunities to interact and learn with the multi-disciplinary team. Continuous feedback from supervisors is considered essential for the nursing students' learning process (Jansson & Ene, 2016; Sweet & Broadbent, 2017). It gives them information on where they stand and where they need to focus in the future to improve their learning process. It is advised that regular and frequent feedback from the staff will assist students in engaging with their facilitators, developing strong bonds, and enhancing their skills. It will also give them a feeling of recognition and provide a good learning environment for professional growth. In a study by Thornton et al., effective preparation, clear expectations, a supportive team and regular feedback were identified

as core components of quality educational experience for nursing students. In order to enhance the placement experience, factors such as a welcoming environment and orientation, staff's knowledge of students' capabilities and education objectives should also be taken into consideration (Courtney-Pratt et al., 2012).

One of the themes that emerged in our study from the open-ended question was the potential opportunities for students to learn various skills during placement in the Vaccination Centre. The rotation through different tasks will provide equal opportunity to all the students to learn different skills and exposure to various areas of vaccination other than injections.

As an essential element of educating and training future health workforce, it is important to provide students insight into the planning required for this type of public health initiative and understand different aspects of working in a clinical setting (Sherratt et al., 2022; Joy et al., 2022). Apart from performing clinical jobs, they need to understand how the operational hub supports overall system management, including workforce requirements, by participating in both clinical and non-clinical tasks. In a study by Sherratt et al., undertaking a marshal role, administrative support role and "pod runner" roles were considered as a part of key learning (Sherratt et al., 2022). In our study, the student mostly expected to learn and employ various clinical skills during their placement. They felt exploited doing non-clinical duties such as crowd controlling, marshalling and helping with administrative work. They acknowledged that there was no clarity around what they were expected to do in their role during the placement. This leads to the need to provide students with more clarity and information about the skills they will be offered to learn and what they will be required to do in their roles during placements.

Limitations

The results of this study need to be considered in the context of some potential limitations. One of the limitations of this study was the low response rate. This could have been due to the timing of the survey administration; by the time the surveys were sent out, most of the students had moved out of the university or were busy with other activities. The unprecedented pandemic was a major barrier to the recruitment and response rate. Also, their feedback via Interview would have provided richer data on their perspective about placement in the Vaccination Centres.

5. Conclusion

This study provides insight into the undergraduate nursing student's placement experience in the COVID-19 Vaccination Centres. The results from this study can be used to highlight areas for improvement and enhance the students' experience for future workforce planning and education and training arrangements. The findings of this study will also assist in improving the students' experience when working in similar settings by making appropriate modifications to the processes

and procedures.

Authors' Contributions

JC, LH and SF conceived and led the development of the research project. JC, LH provided support with data collection, NM analysed the data and drafted the manuscript. JC wrote the final draft with inputs from all authors.

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Availability of Data and Materials

The data collected and analysed during the current study are not publicly available due to confidentiality reasons (i.e., identification of the study participants) but are obtainable from the corresponding author at reasonable request.

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Ethics Approval

This study has been approved by the South Western Sydney Local Health District Human Research Ethics Committee (2021/ETH11746).

Participants Consent

For surveys, the participants were advised that submission of the survey indicated consent to participate. The authors confirm that all methods were performed in accordance with the relevant guidelines and regulations of the Declaration of Helsinki.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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