

A One-Week Simulated Clinical Placement for Novice Physiotherapy Students

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Aim: To explore student experience and learning in a simulated clinical placement for novice physiotherapy students.

Methods: A one-week simulated clinical placement was designed to enable the students to meet the learning outcomes for their first clinical placement. Students' performance was assessed using the Common Assessment Form (CAF); a nationally standardised tool. Students' confidence was assessed. A sample of students were invited to participate in focus groups. Focus groups were analysed using King's Template analysis based on four themes identified a priori: (1) Orientation, (2) Simulation environment, (3) Feedback and debriefing and (4) Instructional Design.

Results: Twenty-nine students participated in the simulated placement. All students met the learning outcomes. Students' confidence improved from mean (standard deviation) 35.2(6.2) to 40.1(10.0), p-value 0.04. Students felt they could have been better orientated to the simulated environment, they did enjoy the experience and found the simulation environment non-threatening. There was important feedback on the design of the simulated placement which should be considered for future iterations of the programme.

Conclusion: A one-week simulated clinical placement for novice physiotherapy students can enable them to meet their learning outcomes. Future research should focus on developing validated outcome measures to evaluate simulation in physiotherapy education.

Impact statement:

This study provides a detailed report of how to develop and implement a one-week simulated clinical placement to enable novice physiotherapy students to meet clinical learning outcomes. We report important qualitative data on the student experience of a simulated clinical placement.

Abstract: 198 words

Keywords: simulation; clinical placement; physiotherapy; practice education; experience

Introduction

In March 2020 the World Health Organisation declared COVID-19 a global pandemic¹. All undergraduate physiotherapy practice placements were suspended². This added strain to an already challenged system for physiotherapy education programmes, as educators worldwide grappled with meeting the practice education demands for training physiotherapists³. World Physiotherapy stipulate that practice education should constitute at least one third of all curricula⁴. Practice education is defined as the delivery, assessment and evaluation of learning experiences in practice settings, including institutional, industrial, occupational, primary health care, and community settings⁴. Students should acquire a breadth of experience in various clinical contexts and encompassing a range of professional behaviours. These behaviours include assessment, examination, evaluation, diagnosis, planning, treatment/intervention, re-evaluation, communication skills, professional behaviours and inter-professional socialisation. Typically, students develop proficiency in these behaviours through immersive experiences in traditional clinical practice placements, where they are supervised by a qualified physiotherapist.

The COVID-19 pandemic posed significant challenges for physiotherapy training programmes as students could not progress in their course or graduate without meeting the practice education requirement³. In response, universities innovated in different ways leveraging remote learning activities such as reflective practice, case studies and simulation-based education (SBE)². SBE provides a viable alternative to traditional practice education⁵. SBE has been explored extensively in the physiotherapy literature, a recent scoping review of SBE in physiotherapy education identified 182 studies⁶. However, the authors identified challenges in replicating the

simulation programmes outlined in the studies, additionally, reporting the limited utilisation and integration of published standards of best practice⁶. Locally, we implemented SBE to enable a cohort of physiotherapy students achieve the learning outcomes for their first introductory placement, known as clinical placement 1 (CP1) facilitating their progression to the second year of their programme. While designing the simulation programme, we encountered a lack of guidance in the literature, specifically in the utilisation of curriculum development frameworks for simulation programmes in physiotherapy. There was also a lack of detailed reporting on the operationalisation of SBE, such as time allocated to pre-brief, consultation and debrief. Consequently, we developed a one-week introductory simulation placement using the Thomas and Kern curriculum development framework 6-step approach (Table 1⁷). The International Nursing Association for Clinical Simulation and Learning (INACSL)⁸ standards of best practice were considered in the design of this simulated clinical placement.

The aim of this study was therefore to explore student experience and learning in a simulation placement for novice physiotherapy students. Specific study objectives were: (i) to explore if students could meet the learning outcomes for an introductory placement through SBE; (ii) to explore the impact of the simulation placement on students' confidence relating to clinical competence; (iii) to evaluate and explore the student experience of the simulation placement.

Table 1 Mapping of Simulated Clinical Placement to Curriculum Framework

Thomas and Kern 6-Step Curriculum Framework	
Item	Description
Step 1: Problem Identification and General Needs Assessment	The COVID-19 pandemic resulted in the suspension of all undergraduate physiotherapy placements.
Step 2: Targeted Needs Assessment	A cohort of physiotherapy students at the Royal College of Surgeons in Ireland could not progress to the second year of their degree programme without passing the Clinical Placement 1 (CP1) module.

	CP1 is a one-week observational placement, that is graded as pass/fail.
Step 3: Goals and Objectives	In line with the national standards for clinical placement assessment the learning outcomes (patient assessment, patient treatment/management, professionalism, documentation, communication).
Step 4: Educational Strategies	A one-week simulated clinical placement was designed to enable the students to meet the learning outcomes.
Step 5: Implementation	The lead authors (OOS and HH) designed the simulated clinical placement. Support was obtained from the Head of School and the lecturers. OOS and HH liaised with the simulation team regarding the allocation of resources including room bookings, staff and equipment to allow for the implementation of the simulated clinical placement. This was the first time the clinical placement took place in a simulated environment. Important data were obtained during the sixth step (evaluation and feedback) to optimise future iterations and implementation of the simulated clinical placement.
Step 6: Evaluation and Feedback	Student performance was evaluated using the Common Assessment Form (CAF). The CAF is a nationally recognised tool for assessing student performance on clinical placement. Students submitted a workbook including their learning objectives for the week, peer assessment, clinical documentation and a reflection of their experience and performance. Students also submitted two videos of their simulated encounters for assessment. Students self-assessed their confidence relating to clinical competence before and after the clinical placement. Half of the students were randomly selected and invited to participate in focus groups to provide feedback on the simulated clinical placement. Three focus were conducted, involving 13 participants (ranging from 3 – 6 per focus group).

Methods

This was a mixed methods study design. Both quantitative and qualitative data were collected to allow for individual and programme level evaluation. All first-year physiotherapy students scheduled to attend introductory placement in May 2020 (CP1) were invited to participate in the research study (September 2020). Ethical approval was obtained from the RCSI research ethics committee. Written, informed consent was obtained by post-doctoral researchers not known to the students. Students were informed that non-participation in the research would not affect their academic standing. The CONSORT extension for reporting simulation interventions was used to guide the reporting of this paper⁸.

The simulation placement

The five-day simulation placement incorporated in-person sessions for the first four days, followed by a remote delivery on the fifth day. Each day (days 1-4) focused on a distinct clinical area: (1) Musculoskeletal, (2) Neurology, (3) Care of the older person and (4) Respiratory. On the fifth day students participated in a clinical reasoning tutorial and delivered group presentations. An overview of the timetable for the simulated placement is available in Table 2. Each simulation session followed a structured format, including pre-brief, consultation and debrief. Facilitators developed scenarios for each session, with the majority involving simulated patients. Two respiratory scenarios utilised manikins. Simulated patients received scenario descriptions in advance of the session and underwent face-to-face training by facilitators prior to the consultation, which were unscripted. Manikins were used for enhanced authenticity such as the reproduction of abnormal breath sounds in respiratory patients. The debrief was conducted using the Plus-Delta model⁹. For detailed information of the simulation sessions including duration of pre-brief, consultation, debrief, simulated patient characteristics and consultation instructions, refer to eTable 1 in the supplemental file. The facilitator characteristics are detailed in Table 3.

Table 2 Overview of Timetable for the Simulated Placement

	Monday	Tuesday	Wednesday	Thursday	Friday
Sessi on 1:	Induction (Welcome, orientation to sim week, documentation practical)	Musculoskeletal 1 Simulation (pre- brief, scenario and debrief)	Respiratory session 1 Simulation (pre- brief, scenario and debrief) High fidelity simulation	Care of the older person Simulation (pre- brief, scenario and debrief)	Clinical reasoning
Sessi on 2:	Neurology Simulation (pre- brief, scenario and debrief)	Musculoskeletal 2 Simulation (pre-brief, scenario and debrief)	Respiratory session 2 Simulation (pre-brief, scenario and debrief)	Presentation preparation	Student presentations

Table 3 Facilitator characteristics

Session	Facilitator(s)	Role/Expertise
Induction	Helen Heery	Practice Education Manager
	Fiona Daly	Practice Education Coordinator
Neurology simulation	Dr Ailish Malone	Physiotherapy Lecturer
	Liz O'Sullivan	Clinical Specialist Physiotherapist and Clinical Educator
Musculoskeletal 1 Simulation	Prof Helen French	Associate Professor in Physiotherapy
	Ruairi Wedel	Senior Musculoskeletal Physiotherapist and Clinical Educator
Musculoskeletal 2 Simulation	Louise Keating	Physiotherapy Lecturer
	John Healy	Senior Musculoskeletal Physiotherapist and Clinical Educator
Respiratory session 1 Simulation	Dr Orlagh O'Shea	Physiotherapy Lecturer
	Simon Galligan	Clinical Specialist Physiotherapist and Clinical Tutor
	Emma Kelly	Physiotherapy Lecturer and Clinical Tutor
	Miroslav Voborsky	Senior Clinical Skills and Simulation Technician
Respiratory session 2 Simulation	Emma Kelly	Physiotherapy Lecturer and Clinical Tutor
	Dr Orlagh O'Shea	Physiotherapy Lecturer
Care of the older person Simulation	Prof Frances Horgan	Professor of Physiotherapy
	Maire Fitzgerald	Chartered Physiotherapist and Clinical Educator
Clinical reasoning	Prof Helen French	Associate Professor in Physiotherapy
Student presentations	Helen Heery	Practice Education Manager

Objective (i)

To explore if students could meet the CP1 learning outcomes (Table 4) in a simulation placement, all students were assessed using the Common Assessment Form (CAF). The CAF is the standardised tool for assessing student performance, based on nationally agreed learning outcomes for practice placement¹¹. To determine if students had met the learning outcomes as stated on the CAF, students were assessed by a designated facilitator. Assessment was based on a submitted programme workbook, two self-selected consultation recordings and a team presentation. The programme workbook included the student's clinical documentation, completed peer observation templates, self- assessment and reflection on their performance

during the consultations. For the team presentation, students were allocated into small groups (3-4 students), each with an assigned topic related to a simulation session. Students were given time to research this topic and on the final day, each student participated in the online team presentation. Students were provided with one-to-one verbal feedback by a member of the physiotherapy lecturing team. All students were graded as pass/fail.

Table 4 Learning Outcomes for Simulated Clinical Placement

Patient Assessment (including safety)
Answers questions from educator/tutor on core clinical knowledge and skills
Retrieves relevant information from available sources
Performs a subjective examination
Perform aspects of the objective examination
Demonstrates safe and appropriate handling skills during assessment
Patient Treatment/Management
Able to explain the rationale for choice of treatment to supervisor/patient
Carries out clinical/treatment instructions appropriately
Teaches aspects of management and care to patients in an effective manner
Demonstrates appropriate manual handling skills for self and patient during treatment
Professionalism
Shows evidence of pre-placement reading and ongoing placement preparation
Demonstrates initiative and willingness to learn
Acts on and accepts guidance and/or feedback
Demonstrates an awareness of their own limitations and seeks help where necessary
Shows evidence of self-directed learning and uses a reflective approach to practice
Maintains patient confidentiality at all times
Demonstrates appropriate professional behaviours and attitudes at all times in the clinical environment
Demonstrates an awareness of attitudes required to facilitate patient-centred care
Documentation
Documents an appropriate database
Includes relevant subjective and objective findings in documentation
Writes legible records
Adheres to all national legal requirements
Communication
Appropriate level of confidence in gaining consent and introducing oneself to patients
Appropriate verbal and non-verbal skills & listening skills in interactions with patients, carer/family, physiotherapy colleagues and MDT
Participates in and initiates appropriate dialogue in the clinical environment
Respects the rights, dignity and individuality of the patient

Objective (ii)

To explore the impact of the simulation placement on students' confidence relating to clinical competence, students completed a Confidence questionnaire¹² on day 1 and day 5. This 14-item questionnaire rates confidence on a scale of 1-4 (1: not confident at all, 2: slightly confident, 3: moderately confident, 4: very confident) in relation to the following clinical competencies: communication, professional and ethical behaviour, receiving and responding to feedback. This questionnaire was developed and previously used to assess student physiotherapists' confidence relating to clinical competence following simulation.¹² A higher score in this questionnaire denotes a higher level of confidence.

All quantitative data were entered into Stata statistical software (StataCorp, College Station, Texas, USA) for analysis. A paired sample *t*-test was conducted to explore pre/post difference in the confidence score.

Objective (iii)

To explore the student experience of the simulation placement, a random sample of half of the students (n=16) was invited to participate in focus groups. A topic guide was developed using the Reporting guidelines for Health care Simulation research (Table 5). The focus groups were conducted remotely on the Microsoft Teams (Microsoft Corp, Redmond, Washington, USA) platform the week after CP1. A post-doctoral researcher not known to the students facilitated the focus groups. The focus groups were audio recorded and transcribed.

Table 5 Focus group topic guide

1. Preparation/orientation
• Did you feel as though you were given sufficient material and time to prepare to the simulated placement? • Were you adequately orientated to the timetable and activities for the week?
2. Learning environment
• Did you feel as though the simulated placement was a safe and non-judgemental learning environment?

•	How did you feel during the debrief sessions?
3.	Feedback Did you receive adequate and timely feedback on your performances throughout this simulated placement week?
4.	Learning outcomes Thinking about the learning outcomes in the clinical assessment form (CAF) for CP1 and the objectives you set for your own learning Do you feel as though you were given enough opportunity to achieve these?
5.	Anything else Lastly is there anything you would like to add regarding your experience of the simulated placement week? (prompts: duration/intensity)

The qualitative data were analysed using King's Template Analysis¹³. The themes identified *a priori* were informed by the Reporting Guidelines for Health Care Simulation Research: (1) Orientation, (2) Simulation Environment, (3) Feedback and debriefing and (4) Instructional Design. Two authors (OOS and HH) coded the transcripts independently line-by-line according to these four themes. Three authors (OOS, HH and WE) discussed and agreed the codes to reach consensus, with no further changes required to the themes.

Reflexivity

The authors have expertise in health professions educational research, physiotherapy education and simulation. The lead researchers OO'S and HH, designed the simulated programme and research evaluation. OO'S is a lecturer in the School of Physiotherapy (SoP) and HH is a practice education manager. Authors FH, FD, AM, LK, HF and SMcD are members of the physiotherapy academic teaching staff and were involved in the design and delivery of the simulated placement. The focus groups were conducted by a postdoctoral researcher (AS) who was not known to the students to allow the students to express their honest opinions, AS is a physiotherapist. WE and DD have significant experience in SBL and qualitative research.

Results

Thirty-two students completed the simulation placement. Twenty-nine students agreed to participate in the research study. Two students were unable to take part due to COVID-19 restrictions, one student consented but later withdrew consent with no reason given.

Objective (i)

All participants were deemed to have met the learning outcomes on the CAF.

Objective (ii)

There were confidence scores available for 29 participants at baseline and 24 participants post simulation. There was a statistically significant increase in confidence scores. Students' confidence improved from mean (standard deviation) 35.2 (6.2) to 40.1 (10.0) (Figure 1). There was mean difference (95% confidence interval) of -5.2 [-10.3 to -0.2] and p-value 0.04 from before to after.

Objective (iii)

Three focus groups were conducted, involving 12 participants. One further student was invited to participate but declined due to other commitments. Focus group participation ranged between 3-6 participants and the duration ranged from 18-21 minutes. Here we report representative quotes relating to each of the four themes e.g. P01F, FG1 is participant 1 (female) from focus group 1.

Orientation

Students had an induction session on the first morning and were also provided with information of the simulation placement a week before it started, students reported that, *"everyone felt quite overwhelmed,"* P02F FG1. Students were required to do some preparatory work in advance which added to these feelings of being overwhelmed.

"So it wasn't even just the information. We were just landed with an 80 page document with everything in it and trying to even navigate, we need to do this beforehand. You need to write up this, you need to do to these courses. It was just very overwhelming."
P03F FG1

Students felt that orientation to simulation could be improved by providing the information earlier for example “two weeks,” P10F FG3 or up to “*couple of months beforehand,*” P06M FG2. In general, students felt they could have been provided with more information about the simulation week including the provision of “*a couple of short videos to show what the cases were about, what was required of us,*” P03F FG1 or having “*a live online orientation,*” where students “*could ask questions, maybe say two days after we got the document,*” P02F FG1. It was also suggested that “*the lectures leading their sessions, gave a brief chat to the students on what would be involved in their session.*” P10F FG3 Students also felt that they could have been given more information on documentation in the orientation session provided.

“I thought it [the induction session] was very helpful, but I just think maybe they could have added discussing soap notes a little bit more detail.” P04F FG1

Simulation Environment

Students described the simulation environment as “safe,” P07F FG2 and the facilitators as “encouraging” P11F FG3. Students felt “*able to make mistakes*” P107 FG2 as it was “*made clear that it was a learning experience.*” 09F FG2. They felt that “*everyone was just really there to learn and encourage you and just help you be the best you could be,*” 03F FG1. The use of simulated patients augmented the learning experience while also ensuring students remained in a safe learning environment.

“I found the simulated patients to be really, really helpful because we knew they were actors. It took a little bit of the nerves away because it wasn't a real patient, so you couldn't really make any mistakes, but yet you learned so much because it feels kind of real” P11 FG3

Though the simulated patients provided students with a sense of being in a more clinical environment, there were instances when it was perceived that the SPs could have been better prepared or trained for the scenario.

"I didn't feel as though he (SP) knew the role he was meant to be playing. So sometimes it can be confusing if they're meant to display problems so that we can work through it. but the way he (SP) was acting wasn't corresponding with what he was meant to be doing." P11F FG3

"One of the (simulated) patients we had, we had to test to see what injury they had. We did a lot of objective tests on them and they tested positive for a lot more tests than they were meant to. So then to find a correct injury was very difficult because it's just so many things are wrong with the patient." P12F FG3

Feedback and debriefing

Students received feedback from multiple sources including *"patients and facilitators,"* P09F FG2 and peers. Peer observation was recognised as *"very helpful"* P04F FG1 form of feedback and learning as students could compare and contrast their own performance against their peers.

"I also think it was great to see other people do the same case or similar case that you would have done because you see things that they had done well that maybe you struggled with, or even that you thought you did well, but how they handled it differently, stuff like that. So it's great to learn from how other people handle the same situations." P11F FG3

In general feedback was well received, students felt it *"was really good,"* and *"things that you wouldn't have picked up on yourself,"* P02F FG1 were highlighted in a *"non-judgmental,"* and *"constructive"* P06M FG2 manner. Feedback was also timely as it *"was straight after,"* P02F FG1 and there was *"no shortage of it,"* P05F F2. On one occasion a student felt that during the debrief *"every small mistake was critically highlighted while we were watching live videos".* P01M FG1

The provision of feedback from the simulated patients was considered to be particularly valuable.

"...they [the simulated patients] gave us quite detailed feedback that we wouldn't have gotten. If we were on a real placement, our patients wouldn't be giving us the same kind of feedback. And so I thought that was really helpful as well from the simulated aspect." P12F FG3

Some students had the same simulated patient on a few occasions and this became beneficial as the simulated patient could provide feedback on their performance, highlighting areas where they had improved.

“I had one patient three times and by the third time he just said, well, ‘I said this in your first feedback,. And you’ve actually worked on that’... .. which I found really helpful that he was keeping track of what he had been saying.” P12F FG3

Instructional Design

In general, students described the week as “intense, but it was very enjoyable.” P06M FG2. The intensity of the schedule led to students feeling “exhausted by the end of it.” P07F FG2, but reflected that “there isn’t anything you could have cut out, everything had to be there, we needed to cover all of that stuff.” P01M FG1. The intensity of the week may have been amplified by the timing, as it was the “first week after having so much time off,” P07F.FG2. Students were “coming out of six months of quarantine and not having to do a whole pile to being in for an eight, nine hour day,” P03F FG1. However, having some exposure to simulation before placement was seen as valuable, for a number of reasons.

“Yeah. I think we're much better off having done that rather than just going straight out onto placement because we'd been out of college for so long”. P05F FG1

“I thought it was a nice way to break us in, to introduce placement to us because we weren't practicing on real patients, it just felt quite safe. And we weren't going to do any harm to anybody”. P07F FG2

“I thought it was very helpful. I definitely think I'm a lot more confident going out into CP2 now than I would have been if we hadn't done a simulated placement.” P03F FG1

Some students identified elements within the schedule that could be improved for future delivery. For instance, a few students perceived the debrief as becoming “a little bit repetitive as the week went on,” P07F FG2. The debrief was the last component of the schedule and “towards the end of the day when everyone's tired.” P0M FG11. Each consultation was allotted

30 minutes, and students expressed that, it might have been *“maybe slightly too long, in some cases,”* P09F FG2. They mentioned instances where they found themselves *“sitting there in silence”* P06M FG2 or *“making small talk with patients,”* P08M GF2. Students felt that *“15 minutes, 20 minutes max,”* P07F FG2 would be long enough for the consultations.

Students felt that they were given opportunities to meet the learning objectives for the week, for example they were *“able to develop our communication skills,”* P03F FG1, that they got *“brilliant exposure for doing subjective assessments”* P10F FG3 by interacting with a variety of patients; *“we’ve got enough patients and different kinds of patients.”* P03F FG1 Finally, students also had opportunity for repeated practice

“...one of my objectives or goals was to be able to write a SOAP note. And after each simulated patient case in the debrief, we wrote a SOAP note together with the staff and they encouraged us to ask those questions and really gave us so much advice on how to write them. So I felt very comfortable by the end of the week, being able to write one.” P11F FG3

Discussion

This study achieved the aim to pilot test a simulation placement for novice physiotherapy students. All students met the learning outcomes for the placement based on self-reported outcomes and demonstrated higher levels of confidence relating to clinical competence. There were a number of important learnings from this research, which participants outlined during the qualitative focus groups.

All participants in the simulated placement group met the learning outcomes as assessed in the CAF. The CAF is used for the assessment of student performance on practice placement in Ireland. This is in line with current practice in Australia, where physiotherapy programmes use the Assessment of Physiotherapy Practice (APP) to assess clinical competence in both simulated and traditional placements^{12,14}. The APP has been classified at a higher level (grade 2) than the CAF (grade 3) in a systematic review of psychometric/edumetric properties of

clinical performance assessment tools in physiotherapy practice education ¹⁵. The CAF lacked enough information to grade the overall validity and was graded as C for overall reliability in contrast to the APP, which was graded as A for overall validity and B for overall validity. Stockert et al. (2022) have highlighted the limited use of validated outcome measures in pre-registration physiotherapy simulation research⁶. Future research should explore the development of globally applicable reliable and valid tools to assess physiotherapy students' clinical competency on a simulated placement.

Participants' confidence relating to clinical competence increased following the clinical placement. This aligns with current evidence, which has demonstrated that simulation can increase confidence across healthcare disciplines ^{14, 16, 17}. This change in students' confidence was confirmed in our qualitative results. While confidence is not a measure of actual ability, current research suggests that higher levels of confidence may result in higher levels of clinical competence ¹⁸. Students with higher levels of confidence are more likely to make effective and timely decisions in the clinical setting, which can lead to improved patient outcomes ¹⁹. Students with higher levels of confidence may be better able to establish rapport with patients, communicate effectively, and engage in patient-centered care. It is important however to acknowledge that the outcome measure used in the current study was not validated, further strengthening the calls for the development of valid and reliable tools for use in research relating to simulation in physiotherapy education ^{6, 12}. Lastly, our study was not powered to explore statistical significance and we therefore advise caution when interpreting the results.

There is a lack of guidance in the literature on the duration of time that should be allocated for simulated related activities including pre-briefing, consultations and de-briefing. The reporting of the duration of time spent in these activities is incomplete ²⁰⁻²⁹, and where it is reported wide variations have been observed; pre-brief duration: 15-85 minutes³⁰⁻³², debrief duration: 15-60 minutes³⁰⁻³² and scenario 15-75 minutes^{22, 25, 26, 29, 30-32}. While we acknowledge that these times

are likely to vary depending on the learning objectives the lack of guidelines, reporting and disparity is of concern. Students in the current study felt that the 30 minutes for consultations was too long, we recommend that future delivery of simulated consultations allow students to leave the room once they have finished their consultations to reflect a more authentic clinical encounter. The time spent on each consultation can be recorded and reported. Students also felt that the debrief was too long and they were often quite tired. While a debrief is typically conducted straight after a simulated encounter which would have followed the pre-brief, there may be scope to explore delivering the debrief the following day when students may have had a chance to reflect on their performance and are perhaps more energised. In general, students appeared to enjoy the simulation clinical placement but they had some important feedback that should be considered for future iterations of this programme. We would revise our orientation process and review the timing of the simulated placement so that it does not occur immediately after the students' summer break.

Simulated education has increased exponentially in physiotherapy training in recent years, there was a fivefold increase in publications relating to the use of simulation in physiotherapy training between 2012-2021 (150 publications) compared to before 2001 (30 publications)⁶. Simulation is no longer a novel educational technique, future research needs to now focus on delivering higher quality research with better reporting to enhance reliability and replication in other settings. Furthermore, the development valid outcome measures to evaluate the effectiveness of simulation is needed to increase quality.

Conclusion

A one-week simulated clinical placement for novice physiotherapy students can enable them to meet their learning outcomes and increases student confidence relating to clinical competence. In general, students enjoyed the experience. Future research should focus on the development

of validated outcome measures to evaluate the effectiveness of simulation in physiotherapy clinical education.

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