Learning Occupational Therapy Practice using Standardised Patients in a Practical Examination – Experiences of Students and Teachers

Pedagogiskt docenturarbete

Christina Turesson
Learning occupational therapy practice using standardised patients in a practical examination – experiences of students and teachers

Christina Turesson & Annika Lindh Falk

To cite this article: Christina Turesson & Annika Lindh Falk (2021): Learning occupational therapy practice using standardised patients in a practical examination – experiences of students and teachers, Scandinavian Journal of Occupational Therapy, DOI: 10.1080/11038128.2021.1974549

To link to this article: https://doi.org/10.1080/11038128.2021.1974549

Published online: 12 Sep 2021.
Learning occupational therapy practice using standardised patients in a practical examination – experiences of students and teachers

Christina Turesson and Annika Lindh Falk
Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden

ABSTRACT
Background: The use of simulated learning activities in occupational therapy education has emerged in the past decade. Studies describing experiences of using standardised patients in practical examination in occupational therapy is lacking.
Objective: To describe teachers’ and students’ experiences of a newly implemented practical examination in occupational therapy education using standardised patients.
Material and methods: A qualitative study using data from student questionnaires, a focus-group with five teachers, and teachers’ reflective diary notes. Data were analysed with problem-driven content analysis.
Results: Three categories were identified: The practical examination as a learning situation included a structured learning environment and scenarios with standardised patients with the right level of complexity. The teacher’s role was influenced by the educational approach applied to create equal conditions for all students, students’ thoughts about being assessed and the teachers’ emphasis of being well prepared. The examination was an opportunity for developing practical skills. The students valued being prepared for clinical practice and the teachers valued the examination as a bridge between theory and practice.
Conclusion and significance: A carefully planned practical examination can contribute to developing professional occupational therapy competences and is a tool for educators to replicate the authentic clinical settings students encounter in fieldwork.

Introduction
This paper presents findings from a pedagogical improvement project regards a practical examination involving standardised patients for occupational therapy students. The development of professional competencies is fundamental for occupational therapy (OT) students to become practitioners [1]. As part of World Federation of Occupational Therapists’ accreditation requirements, OT students must complete 1000 h of clinical placement during their education. However, it is a challenge for OT programs worldwide to find placements that provide high-quality learning experiences ensuring that students achieve professional competencies across a range of clinical practice areas [2,3]. As an adjunct to practice-based learning, the use of simulated learning activities in OT education has emerged in the past decade [4–6]. Simulation includes different modalities and techniques to create real situations: written case-based scenarios, videos of simulated or real patients, role play or standardised patients [7,8]. One or more of these approaches can be used to create simple task-based activities or complex scenarios and environments. Simulation-based education, in occupational therapy curricula has been used for a wide range of purposes, and appears to be well received [9], and the use of standardised patients (SPs) is common. An SP can be an actor, or a real patient with a condition or disability, who are trained to present in a way to challenge a student in their learning process. Using SPs in education can add the potential for facilitating and assessing non-procedural skills, including integration of knowledge [10]. A learning activity with SPs provides an authentic, purposeful experience, encouraging deeper thought and self-confidence for the students [11]. Imms et al. [12], compared simulated clinical placement ( SCPs) with traditional clinical placement (TCPs), and found that students achieved equivalent outcomes in professional-practice knowledge and skills, regardless of which learning activities they participated in. Haracz et al. [13] concluded that the
students rated a simulation with an SP as a valuable and unique experience. Further, a questionnaire study investigated students’ perception of learning activities using SP and highlighted the value of interaction with SPs [14]. However, there is a lack of studies describing experiences of using SPs in practical examination for OT students. At Linkoping university, simulation activities have been embedded across all health programs. A pedagogical improvement project, initiated by the Faculty of Medicine and Health Sciences, encouraged the OT program to design a practical examination using SPs.

The aim of this study was to describe teachers’ and students’ experiences of a newly implemented practical examination in OT using SPs.

**Material and methods**

**Study design**

A qualitative study using student questionnaires, a focus-group with teachers, and teachers’ reflective diary notes. Data were analysed with problem-driven content analysis.

**Table 1. Brief description of the scenarios used in the practical examination.**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
<th>Expected interventions to be performed</th>
<th>Resources available for the student to use and choose between for interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke, kitchen activity</td>
<td>Ann-Marie had a stroke 9 weeks ago. She has left side weakness and has just arrived at home. Rehabilitation at the hospital has focussed on functional ADL training. At home, Ann-Marie wants to be able to make her own breakfast.</td>
<td>Functional ADL training. Adaptation of kitchen activity.</td>
<td>Walking and sitting aids. Assistive devices for the kitchen. Equipped kitchen with adaptive height and breakfast food.</td>
</tr>
<tr>
<td>Neurological condition after infection, wheelchair adjustment</td>
<td>Lisa is newly arrived at an assistive living facility with her wheelchair. The staff has noticed that she is not sitting very well and has tendency for developing pressure sore.</td>
<td>Adjustment of the wheelchair to optimise sitting.</td>
<td>Different wheelchairs and tools for adjustment. Wheelchair cushions. Walker.</td>
</tr>
<tr>
<td>Stroke, transfer</td>
<td>Inga had a stroke 1 week ago. She has a paresis in her left arm and hand and has diminished proprioception in her left leg. The goal is for Inga to manage transfers to get up from bed to standing up and walk in a safe manner.</td>
<td>Functional ADL training. Adaptation of transfers.</td>
<td>Hospital bed. Different walking aids. Wheelchair. Arm sling.</td>
</tr>
<tr>
<td>Hip arthroplasty, dressing</td>
<td>Per got a hip arthroplasty three days ago. Now plans are made for him to return home. At home, Per needs to manage getting dressed independently and at the same time follow given restrictions after surgery.</td>
<td>Functional ADL training. Adaptation of dressing activity.</td>
<td>Walking and sitting aids. Assistive devices for getting dressed. Clothes.</td>
</tr>
<tr>
<td>Thumb base osteoarthritis, work activity</td>
<td>Bengt has been diagnosed with osteoarthritis in his right thumb. He has difficulties to manage duties at work at the assembly line due to the pain.</td>
<td>Ergonomic principles, orthoses, hand exercise</td>
<td>Information brochures, different orthoses and exercise programs.</td>
</tr>
</tbody>
</table>

The students were given a more detailed description of the situation and the occupational therapy assessment.

**Study context and description of the practical examination**

The study context was the second year of a 3-year baccalaureate OT program at Linkoping University (LiU). In connection with a curriculum change in the OT program, a practical examination was introduced in the beginning of the second year of 2017. The learning objectives of the practical examination included development of knowledge and skills to apply OT interventions for clients with functional limitations in the musculoskeletal or nervous systems. The practical examination was performed as five parallel sessions in which five teachers and five SPs participated. Scenarios with comparable levels of complexity had been developed and included topics related to hand therapy and orthopaedic conditions (i.e. osteoarthritis, arthroplasty, fractures) or stroke (Table 1). The scenarios were compared to ensure similar requirements on student performance and to provide the degree of difficulty students in the second year of the OT program could be expected to face and manage. Assessment criteria were being able to choose a relevant OT intervention; perform the
intervention in a structured way; adapt pace; performance and language appropriate to the patient; and reflect on their performance and the intervention. Each scenario provided written information regarding the patient and data from an OT assessment, and the students were expected to perform an intervention. Equipment to be used during each scenario was provided to create an authentic environment with a range of treatment options to choose from, such as different orthoses or technical aids. Each SP was given a script for the scenario that contained background information about the person the SP was to play, such as family, roles, habits, interests, working status, and health issues. The script also included instructions about how to act in different situations depending on the students’ actions. The teacher and SP also went through the scenario together before the examination started, to give the SP a sense of how the intervention should be performed; however, the SPs were instructed not to help the students during the practical examination. A checklist was developed for each scenario to be used by the participating teacher for grading of student’s performance during the examination. The students did not know in advance which scenario they would face but knew it was related to the scenarios used for skills training, that is hand therapy and orthopaedic conditions (i.e. osteoarthritis, arthroplasty, fractures) or stroke, and they had in total 30 min for the examination (Figure 1). The teacher was in the room during the practical examination observing the student. When the SP exited the room after 25 min the teacher asked the student to reflect upon the intervention and the performance. The SPs did not give feedback directly to the students at the practical examination but provided their opinion regarding the student’s performance to the teacher after the examination.

Before the practical examination, students accessed 12 h of practical skills training with a teacher and had scenarios and equipment available for their own practice. They did not work with SPs before the practical examination. However, during previous semesters the students participated in other learning activities in which they practiced their communication skills.

The practical examination was one of the examinations during the semester and comprised four of 30 European Credit Transfer and Accumulation System (ECTS). The students were assessed as passed or failed on each assessment criteria and all criteria had to be approved to pass the examination. The students did not have to pass the practical examination to be eligible to go on their clinical placement which took place within 2 weeks after the practical examination. The clinical placement period (4 weeks) was the second one for the students where they could choose from a wide range of practice settings reflecting the scenarios in the practical examination.

Participants

The participants were recruited via consecutive sampling. During 2017–2019, all second-year students (n = 112) who participated in the practical examination were invited to the study. Forty-six students

![Figure 1. Structure and content of the practical examination.](image-url)
(41%) responded anonymously to the questionnaire about 2 months after completing the practical examination and after they had finished their clinical placement. The students, answering the questionnaire, had experiences of varying scenarios from the practical examination. The teachers, responsible for the development and implementation of the practical examination were invited to the study via email. The five teachers (all women), with a mean age of 52 years, participated in the focus group, and four of them filled in the reflective diary notes. All of them were OTs and had an average of 25 years (range 18–38) of experience as OTs and an average of 10 years (range 2–30) as teachers in the OT program at Linkoping University.

Data collection

Data collection consisted of three parts. First, a student questionnaire, which consisted of eight open questions (Table 2). The students’ written responses were compiled into a document totalling 15 pages.

The second part, the focus group with the teachers, was performed in the end of 2018 and was based on an interview guide with open questions regarding their reflections about how the examination was performed, assessment of the students, feedback to the students, and perceived benefits of implementing the practical examination. The focus group was conducted in as a semi-structured interview guide with additional probing questions. The interview was led by the second author (ALF), a registered OT not involved in the practical examination. The interview took 75 min and was recorded digitally and transcribed verbatim into text.

The third part, the reflective diary notes, were collected in the beginning of 2019 and consisted of the teachers’ reflections about the following topics: pedagogical aspects regarding the examination and practical skills training before the examination, and continuous adjustments of scenarios or environment. The reflective diary notes in total four pages of typed text.

Analysis

A problem-driven content analysis [15] was performed on data from the student questionnaire, the focus group, and the reflective diary notes. The analysis started with identification of meaning units in the text documents. The meaning units were given a code (a shorter description), and preliminary subcategories and main categories were developed based on similarities and differences between the codes (Table 3). The analysis was performed together by the two authors as an ongoing collaborative work process in which the authors contributed using their unique perspective. The researchers performing the analysis were both registered OTs with doctoral degrees (PhD) who had experience of the pedagogical development project and were teachers at the OT entry-level program at LiU. The analysis and the categories were derived from data and discussed continuously. If there

Table 2. Content of the student questionnaire.

<table>
<thead>
<tr>
<th>Question</th>
<th>Code</th>
<th>Subcategory</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How did you experience the practical examination?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. In what way was the practical examination useful for you?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How did the scenario at the examination work?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How was it to meet a standardised patient?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. What is the most important experience from meeting the standardised patient?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How did you experience the assessment of the practical examination?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. What can be improved in the practical examination?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Other comments about the practical examination?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Examples of the analysis with meaning units, codes, subcategories and categories.

<table>
<thead>
<tr>
<th>Meaning unit</th>
<th>Code</th>
<th>Subcategory</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important with the right complexity when the SP’s script is written… how SP acts can make the scenario more or less complex. (T)</td>
<td>Right level of complexity</td>
<td>The scenario and SP</td>
<td>The practical examination as a learning situation</td>
</tr>
<tr>
<td>We decided that they [the students] should be dressed as an occupational therapist to enhance their role performance. (T)</td>
<td>Being dressed as an OT</td>
<td>The environment</td>
<td>The practical examination as a learning situation</td>
</tr>
<tr>
<td>It felt like the teachers helped us to calm down and gave clear instructions about it [the examination]. (S)</td>
<td>Teachers calmed down the students</td>
<td>Educational approach</td>
<td>The teacher’s role during the practical examination</td>
</tr>
<tr>
<td>It is difficult not to confirm or acknowledge the student’s performance [at the final reflection], to just sit there and receive their comments and not being able to say ‘you did great’. (T)</td>
<td>Difficult not giving feedback at the final reflection</td>
<td>Feedback</td>
<td>The teacher’s role during the pedagogical situation</td>
</tr>
<tr>
<td>It was great to try practice skills, I believe turning theory into practice is the best way to learn. (S)</td>
<td>To test practice skills and knowledge</td>
<td>Linking theory to practice</td>
<td>An opportunity for developing practical skills</td>
</tr>
</tbody>
</table>
was disagreement regarding the analysis, the authors revisited the text to reach consensus. The categories developed during the analysis was also presented for and discussed with the teachers participating in the focus group.

**Ethical considerations**

According to the Swedish national regulations, ethics approval from the Swedish Ethical Review Authority was not required for this development project.

**Results**

Three categories were identified: (1) the practical examination as a learning situation; (2) teacher’s role during the practical examination; and (3) an opportunity for developing practical skills (Table 4). Quotes from the teachers or students are included to illustrate the findings, and text within brackets are the authors’ clarifications.

### Table 4. Brief description of the categories and their content.

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategories</th>
<th>Brief description of content based on the coded meaning units</th>
</tr>
</thead>
<tbody>
<tr>
<td>The practical examination as a learning situation</td>
<td>Pedagogical structure</td>
<td>Structured, pedagogical, positive with varying form of examination (S)</td>
</tr>
<tr>
<td></td>
<td>The scenario and SP</td>
<td>Scenarios with the right complexity and relevance, alignment between learning activities (T)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Engaged SPs, great performance, convincing (S)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Different quality of SP’s performance, needs to be standardised but situational (T)</td>
</tr>
<tr>
<td></td>
<td>The environment</td>
<td>Fictive, safe, calm, true environment (S)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Important to be dressed as an OT, the environment is set with a room and objects (T)</td>
</tr>
<tr>
<td>The teacher’s role during the practical examination</td>
<td>Educational approach</td>
<td>Teachers calm down and gave clear instructions. Frustrating before the examination (S)</td>
</tr>
<tr>
<td></td>
<td>Assessment</td>
<td>Did not notice the teacher. It was special to be assessed. Stressful (S)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficult to assess interaction, need to be prepared. Teachers must be aligned (T)</td>
</tr>
<tr>
<td></td>
<td>Reflection and feedback</td>
<td>A possibility to develop what has been done, wanted more time for reflection (S)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflection is a second chance. Clinical reasoning (T)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficult not receiving feedback immediately. Want better feedback at learning activities (S)</td>
</tr>
<tr>
<td>An opportunity for developing practical skills</td>
<td>Mixed feelings regarding performance</td>
<td>Stressful, fun, happiness, joy, feeling prepared and safe, enhancing, challenging, being OT is not for me (S)</td>
</tr>
<tr>
<td></td>
<td>Linking theory to practice</td>
<td>Real practice of meeting clients. How to instruct, talk and adapt to them. To apply knowledge, be professional. Prepare for reality. (S)</td>
</tr>
</tbody>
</table>

**The practical examination as a learning situation**

**Pedagogical structure**

Teachers and students alike reflected upon the practical examination and the learning process that occurred from skills training to the examination. Students reflected upon having experienced different types of examinations during their education, and how this new implemented examination resembled their future professional practice. The students described the practical examination, for example, as structured, pedagogic, or as a valuable learning activity.

I experienced it [the practical examination] as pedagogic and good but you felt a lot of pressure and stress before. (Student no 3, autumn –17)

The teachers stressed the importance of constructive alignment between the preparatory skills training and the practical examination.

They [the students] have done the learning activities and know the scenarios at the examination will be related to that. (Teacher 5)

**The scenario and SP**

According to the teachers, it was challenging to ensure that the scenarios had the right complexity
and relevance in relation to the learning goals. They spoke of the importance of designing the scenarios with similar level of complexity and challenges and to illustrate situations the student might experience could meet at the upcoming clinical placement or in future professional practice. The SPs’ script was mentioned as an important part of the scenario and contributed to the situations’ complexity. It was crucial for SPs to follow the script with situational adaptation; therefore, the script contained questions the SPs could ask the student depending on how the meeting evolved.

One of the SPs had problems playing the role as a patient with stroke, so an arm that was supposed to be paraplegic was functioning and then it was difficult for the student to make the right decision, if the condition changed. (Teacher 1)

The students emphasised the SPs’ dedication to playing their role in a convincing way. This made the situation more authentic compared to when the students practiced on each other. The written part of the scenario was clear to the students and set them on the right track to what to do.

The patient played the role well, but it was good to know it was not for real and that you could not do any damage. (Student no 2, autumn -18)

The environment
The teachers mentioned the environment as a means for making the situation realistic and challenging. The environment consisted of the room, physical objects related to each scenario, such as technical aids, information brochures, orthoses and clothing. The teachers described the objects in the room as clues, to be used by the student. To enter their role as an OT the students had to be dressed in white garments, to resemble the OT uniform worn on clinical placement. The students experienced the learning environment as calm and realistic, although it was a fictitious situation.

A safe environment and a place where I felt I could try to find my way. (Student no 2, spring -19)

Teacher’s role during the practical examination

Educational approach
The teacher’s role during the practical examination was described by the teachers as trying to give standardised information, and to take a passive role and stay in the background.

Our role in the room is very passive. We do not comment on anything during the examination, we just observe and take notes to memorize the situation. (Teacher 2)

The teachers strived for acting in a similar way, that is staying passive during the examination, but at the same time they had to be ready to act if necessary. This was a conscious strategy intended to create the same conditions for all students during the examination. The students mentioned how the teachers calmed them down and gave clear instructions when they felt nervous before the examination.

Assessment
The assessment of the interaction between student and SP was described by the teachers as demanding careful preparation. Learning goals and the assessment criteria had to be discussed to be consistent between different teachers and scenarios. The teachers had created checklists for each scenario and took notes during the examination to support the assessment.

I think we have discussed it [the assessment] a lot and have broken down the learning outcomes to our own situation. Then when I observe the situation, I know what to look for and I have the end points clear, what can pass or not, so I can almost pinpoint it during the examination and decide in which direction the assessment is going. And I also know what I am uncertain about and need to discuss with the others [teachers] afterwards. (Teacher 1)

The students had diverse views of being assessed in the practical examination with an SP. They spoke of not noticing the teacher or forgetting their presence when focussing on the SPs and the scenario.

I did not think about the teacher being present in the room, so it was good. Great that you afterwards had the chance to comment the performance if you wanted to do something differently. (Student no 2, autumn -17)

Others felt it was stressful to be assessed, and there were those who wanted the practical examination to be video recorded instead so they could be alone in the room with the SP.

Reflection and feedback
The teachers spoke of the final reflection as a second chance for the students to explain their actions during the examination as an indication of the student’s clinical reasoning.

I think it is some kind of clinical reasoning you can surmise, if they have got it or not. (Teacher 5)
The chance for reflection was mainly regarded as positive by the students, as they could develop their clinical reasoning about the intervention they had performed and explain what to correct or do differently. However, there were those who expressed the need for more time for reflection. Teachers and students alike mentioned the importance of feedback after the learning activities and the practical examination. The students missed receiving feedback immediately after the reflection with the teacher. The teachers wanted to give feedback to the students after the practical examination, but they were not being allowed to. The teachers feared how immediate feedback after the examination could spread to other students waiting for their examination. Feedback from the SPs was important for the teachers who used it in their written comments to each student to consider for future practice. However, SPs’ feedback did not influence the teachers’ assessment of the students’ performance.

I had a student who did not really dare to touch the SP and then she [the SP] was very upset about it. But the student did all the other things during the meeting very well. Then I had to think about what I saw; how it looked. I think it is different, as she [the SP] experienced it from a patient perspective, but how does it appear if you look at it more objectively? (Teacher 2)

An opportunity for developing practical skills

Mixed feelings regarding performance

The students had mixed feelings when performing the practical examination. They described the situation as stressful with a lot of pressure but also fun, with happiness and joy. Furthermore, they found the situation challenging and self-confidence building. However, there were also students who concluded that the practical examination had shown them that being an OT was not the right career for them.

It [the examination] showed me that maybe I should not continue this education as it might not be something for me. (Student no 10, spring -18)

The teachers noticed the students were nervous, but still were able to perform in the practical examination. According to the teachers, the students’ performance was instead related to their ability to enter the role and act as an OT.

They are nervous but still they are somehow able to shift to their role [as an OT] and then it comes up in the reflection afterwards [about being nervous] … one student reflected about how she had really understood what the examination was all about, that it is not about repeating facts but rather being able to deal with a person… and how do I say this, how do I do that.

(Teacher 3)

Linking theory to practice

The students described the value of the practical examination as a possibility of meeting clients. They mentioned the value of practicing how to instruct, talk and adapt to the SP, to apply earlier theoretical and practical knowledge and act as a professional.

An important experience is to expect that anything can happen, and that you should plan to have enough time for each patient. (Student no 1, spring -18)

Other students mentioned the value of bringing the experience with them and continue to practice communication and interaction skills during the future clinical placement period. Many students felt prepared and realised they had learnt a lot for the future.

To practice meeting a patient without being prepared as it will happen several times later in working life or on clinical placement. To learn from the mistakes, you do during treatment and reflect upon them. (Student no 7, spring -19)

The teachers valued the examination as a bridge between theory and practice, and as a tool for applying practical and communication skills before facing real-life situations. It was a planned situation the student could not fully control, as they needed to interact with the SP. The teachers pointed out that it created learning progression for the students as they progressed from practicing skills on each other to choosing and performing relevant interventions with the SP.

It feels like it creates progression. First, we practice in the learning activities and now they practice on the SP at the examination and then they are going out into the real world. It feels like a logical order. (Teacher 4)

The teachers perceived that the students spent more time practicing skills before the examination, which they thought prepared the students better for clinical placement. The examination was also mentioned as a measure of quality assurance of the OT education. Prior to the introduction of the practical examination, assessment of the students’ practical skills was mainly done during clinical placement where the students could face varying contexts and opportunities for performing assessment or
interventions. With the newly implemented practical examination, all students were challenged in situations with similar levels of complexity, which they had to pass to continue the education.

Discussion

The present study indicates that students and teachers had mainly positive experiences of the implemented practical examination using SPs. In the first category, the importance of the pedagogical structure and the need for alignment between skills training and the practical examination was highlighted in the present study. According to Biggs, constructive alignment is about the educators’ responsibility to create a learning environment that enables the students to achieve the desired learning outcomes [16]. The positive student experiences of meeting SPs are in line with previous findings of how learning activities with SPs can provide an authentic and valuable experience encouraging self-confidence for the students (11, 14). This study contributes with new knowledge about how SPs can be used as a part of a practical examination. Simulation requires significant planning [9] and creating an authentic and professional educational context is a best-practice feature of effective simulation [17]. The design of the practical examination in our study considered components mentioned by Shea [18], such as having a realistic environment, relevant equipment and use of SPs to replicate an authentic clinical situation. The conscious approach regarding creating a pedagogical situation described by the teachers in the present study can be related to the conceptual framework grounded in learning theory for designing simulated clinical placement (SCP) in OT proposed by Chu et al. [19]. Teachers’ experiences in the present study were consistent with several design considerations in the SCP, such as authenticity, complexity, immediacy to practice, learner level, and learning outcomes. Teachers’ and students’ experiences also included elements identified in the SCP that are important to generate positive simulated learning activities, i.e. case scenarios, a simulated environment and patients, and reflection.

The second category, regarding the teacher’s role, highlighted the importance of feedback. The teachers expressed they wanted to give feedback and the students described a lack of feedback immediately after the practical examination. This is an important aspect to consider for further development of the practical examination. Previous research has shown that feedback when using SPs is important for the students’ learning [20] although the study by Wall et al. showed that feedback given during the simulation was not more beneficial than feedback provided after the learning activity [14]. Furthermore, previous research has also shown that OT students value feedback from SP more than from educators [20]. When an SP was used in an examination in the present study, it was not possible to give immediate feedback because the students’ performances were assessed, and legal certainty and equivalence had to be ensured. However, it is important that the feedback given after the practical examination reflects both the educators and the SPs’ perspective to promote learning from the situation.

In the final category, teachers’ and students’ experiences in the present study recognised the practical examination as a motivation for the students to practice their professional skills and to be better prepared for clinical placement. This is concurrent with Giesbrecht, Wener, & Pereira [20], who described using SPs as most beneficial in an early stage of education as preparation for clinical practice. The concept phronesis can be used for describing learning of professional expertise. Phronesis refers to having wisdom to know how to act in different situations, and to make principle-based decisions about what is right; it demands engagement and critical reflection in a specific situation [21]. The concept phronesis can be applied to the present study in relation to the teachers’ description of the examination as a bridge between theory and practice. Using SPs may add the dimension of learning phronesis since each student was required to interact with an SP and relate specific knowledge and skills to the SP and make clinical decisions appropriate for that individual.

The present study explored the experience of using SPs in a practical examination to understand the transfer of students’ knowledge into practice, but economical or organisational issues were not considered. Using SPs reportedly creates greater demands on organisational and economic conditions compared to traditional learning activities [6,22]. Thus, there is a need for OT educators to evaluate the relative cost-effectiveness of using SPs for simulation [23].

Methodological considerations/limitations

The findings of this study are limited in that the sample of teachers was small, and the response rate for the students’ questionnaire was lower than a reasonable minimum (60%) [24]. Data collection among the students were performed after they had completed their clinical placement instead of immediately after
the practical examination. This may have influenced the students' memory of key aspects of what occurred. However, we also wanted them to reflect upon whether the experience of the practical examination had been useful for their clinical placement. Regarding trustworthiness [25], to enhance credibility the authors performed the analysis in a collaborative work-process and returned to the text several times during the analysis to ensure that the categories were derived from data, and not on the authors' preunderstanding. For confirmability, the categories developed from the data during the analysis process was also discussed with the teachers participated in the focus group which can be regarded as member-checking [25]. To address dependability and the stability of data over time, the student questionnaire was collected during four semesters until no new information was given by the students. Transferability to other similar learning situations was enhanced by providing rich description of the study context.

**Implication for occupational therapy education**

Using SPs in practical examination provides a tool for assessing students’ knowledge. It is important to consider at what stage in the education the use of SPs is most valuable. When used in the later stages of the education program, the scenario must be sufficiently complex if it is to challenge the students. The practical examination must be carefully planned regarding the complexity of learning goals, assessment criteria, scenarios including SPs, and teacher’s role, to create similar conditions for the students. A detailed script is crucial for a consistent performance of the SP of the SP. Including comments from the SP in the feedback after the examination is highly valuable for the students in their future role as an OT. Using SPs in a practical examination may increase the demands of the students to interact and apply knowledge and skills, in a safe learning environment.

**Conclusion and significance of findings for occupational therapy**

This study provided further knowledge about how to use SPs in an in OT baccalaureate education program. The students valued the opportunity to develop practical skills and prepare for clinical practice. A carefully planned practical examination using SPs can contribute to developing professional occupational therapy competencies and is a tool for educators to replicate the authentic clinical settings students encounter in fieldwork.

**Disclosure statement**

No potential conflict of interest was reported by the author(s).

**ORCID**

Christina Turesson [http://orcid.org/0000-0003-1201-2212](http://orcid.org/0000-0003-1201-2212)

**References**


