Challenging patient communication in a medical education curriculum - Perspectives on learning with simulated patients

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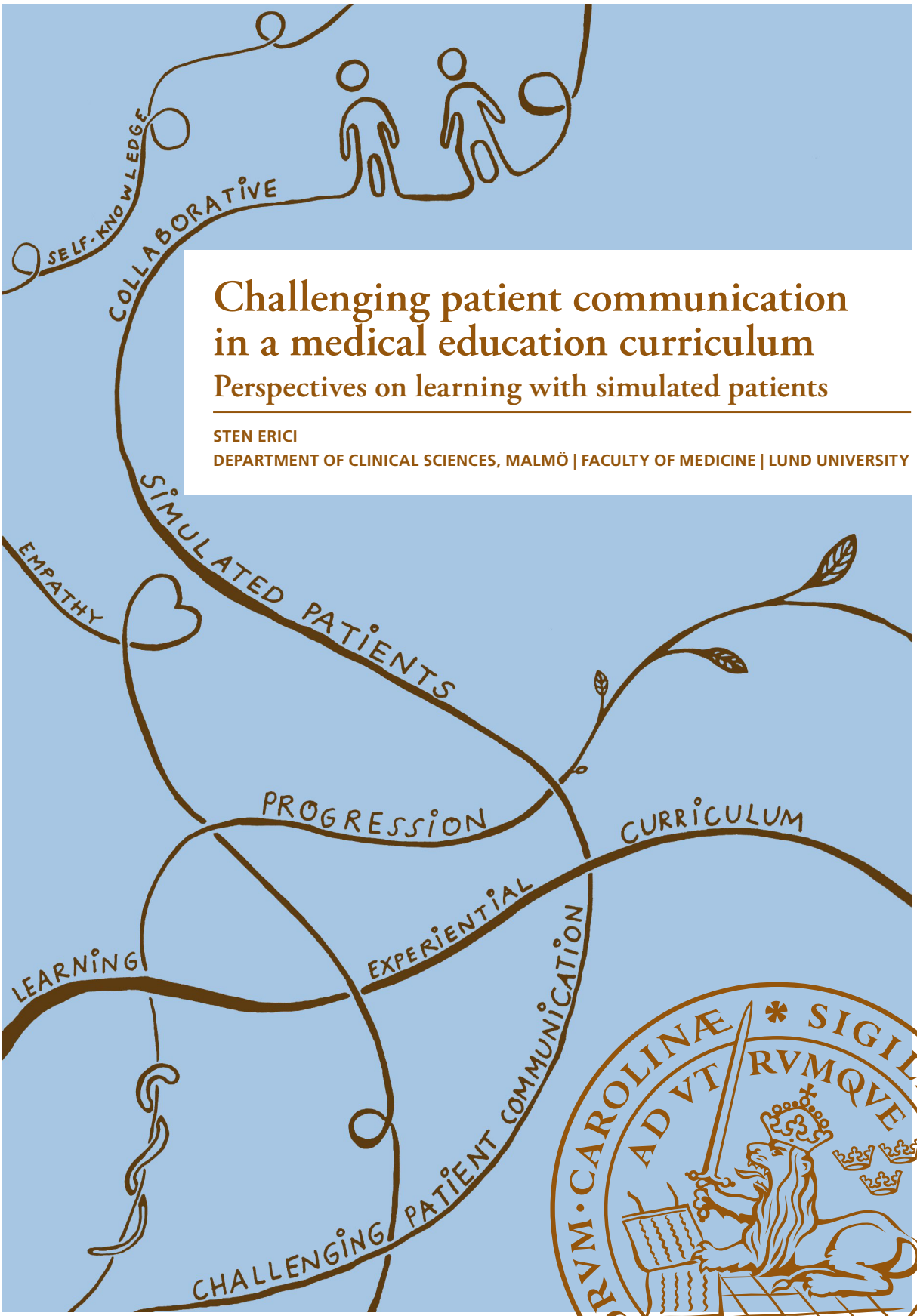

Challenging patient communication in a medical education curriculum

Perspectives on learning with simulated patients

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Perspectives on learning with simulated patients

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LUND
UNIVERSITY

LICENTIATE THESIS

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Abstract:

Being able to manage challenging patient communication and the associated emotional burden is a vital skill for physicians that is regularly utilized in clinical work. Therefore, it is reasonable that medical students get the opportunity to acquire and develop the relevant knowledge and skills related to challenging patient communication during their education. Simulated patient scenarios are useful learning activities known to improve the managing of challenging patient communication. Understanding student and teacher perceptions of vital communicative strategies and how to effectively organize learning activities, including simulated patients, within the curriculum, can enhance students' communicative progression.

The aim of this thesis is to explore perceptions of learning in a simulated patient scenario from three different perspectives: students, simulated patients, and teachers. Additionally, we aim to examine the communicative approaches perceived as vital to manage challenging patient communication and how they are learned from a programme perspective. Furthermore, we seek to explore the relationship between patient simulation and adjacent learning activities.

A qualitative approach was applied. Individual interviews and a narrative survey were conducted with students, teachers, and a simulated patient as part of two separate studies during the 9th semester of a medical programme. Curriculum documents served as a framework.

Our findings indicate that simulated patients in learning how to manage challenging patient communication is perceived beneficial for developing professional identity and self-knowledge. It is crucial that the learning activity enables student centred learning, supported by flexible simulated patients. Self-knowledge and the ability to convey empathy is perceived as essential in handling challenging patient communication. The organization of learning activities is perceived to be enhanced by interweaving activities related to learning medical knowledge and patient communication, including simulated patients.

Key words: simulated patients, challenging patient communication, experiential learning, medical curriculum, professional identity formation, acute crisis

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"Get out of your head, into your space
and await the invisible stranger"

Viola Spolin

Table of Contents

Abstract

Being able to manage challenging patient communication and the associated emotional burden is a vital skill for physicians that is regularly utilized in clinical work. Therefore, it is reasonable that medical students get the opportunity to acquire and develop the relevant knowledge and skills related to challenging patient communication during their education. Simulated patient scenarios are useful learning activities known to improve the managing of challenging patient communication. Understanding student and teacher perceptions of vital communicative strategies and how to effectively organize learning activities, including simulated patients, within the curriculum, can enhance students' communicative progression.

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Populärvetenskaplig sammanfattning

En viktig del av en läkares yrkesliv är att hantera svåra patientsamtal. Alla läkare kommer någon gång under yrkeslivet medverka i sådana samtal. Brister i patientkommunikation har visat sig vara en bidragande orsak till att patienter får sämre vård. Utbildning i patientkommunikation är därför en central del i en läkarutbildning. I följande licentiatavhandling undersöktes hur studenter och lärare ser på undervisningen i att hantera svåra patientsamtal. Det finns olika orsaker till att samtal kan upplevas som svåra eller utmanande. Samtal med hög emotionell belastning, till exempel att ge ett negativt besked eller att möta en patient som är i akut kris, brukar generellt anses som utmanande.

För att genomföra ett gott patientsamtal bör läkare kunna kommunicera medicinsk information och samtidigt ha ett empatiskt förhållningssätt. Detta kan vara svårt att balansera i utmanande patientsamtal. Historiskt sett har fokus legat på att kommunicera medicinsk information på bekostnad av empatiskt förhållningssätt. I dagens vård är patientens delaktighet viktig och då är ett empatiskt förhållningssätt betydelsefullt för att skapa förtroende. Det betyder att läkaren bör förstå patientens behov, farhågor och förväntningar och samtidigt bemöta patientens känslor. För att kunna hantera detta underlättar det om läkaren har självkännedom. Med det menas i följande avhandling att läkaren ska veta hur hen potentiellt reagerar i olika situationer för att kunna hantera sina reaktioner.

Ett sätt att som student lära sig hantera utmanande patientsamtal är att vara med om ett sådant patientsamtal för att sedan reflektera över erfarenheterna. Därefter kan studenten prova att kommunicera i en annan liknande situation. Detta sätt att lära genom erfarenhet är väsentligt när studenter ska utveckla färdigheter. Det är viktigt att situationerna som studenterna erfar är möjliga att klara av men ändå är lärande, de får alltså inte vara för svåra men inte heller för lätta. Det är också viktigt att studenterna får erfara olika samtalssituationer i olika sammanhang för att få flera perspektiv. På detta sätt stöttas möjligheten till utveckling och kunskaper och färdigheter kan befästas.

Studenter brukar värdesätta att lära sig samtala genom att få erfarenhet med faktiska patienter inom den ordinarie vården. Detta kan dock vara svårt att tillgodose när det gäller patientsamtal med hög emotionell belastning. Patienterna kan vara i ett så sårbart tillstånd att det inte är lämpligt, med tanke på deras vård, att möta en student. Det kan även vara olämpligt för studenternas säkerhet, välbefinnande och lärande.

Ett sedan länge beprövat sätt är att låta studenter samtala med en frisk person som gestaltar (simulerar) en patient i ett emotionellt belastat tillstånd. Detta sätt att arbeta finns beskrivet under många namn till exempel standardiserade patienter, proffspatienter, figuranter. I följande avhandling används begreppet simulerade patienter. Genom att använda läraktiviteter med simulerade patienter kan förutsättningar skapas för ett student- och patientsäkert lärande. Den simulerade

patienten ska vara väl förtrogen med aktivitetens syfte och lärandemål samt ha ett grundmanus för patientfallet. Grundmanuset kan individanpassas i förhållande till lärandemålen så att den enskilda studenten lär så mycket som möjligt.

Ett övergripande syfte med avhandlingen är att undersöka läkarstudenters och lärares uppfattning av lärandet i att hantera utmanande patientsamtal under en läkarutbildning. Ett syfte är att utforska lärandet ur olika perspektiv under en patientsimulering och hur det relaterar till andra närliggande utbildningsaktiviteter, före och efter simuleringen. Ett annat syfte är utforska vad studenter och lärare uppfattar som viktigt att lära sig för att kunna hantera kommunikationen i utmanande patientsamtal.

Avhandlingens två studier är kvalitativa med individuella intervjuer samt en enkät med fritextsvar. Inom studie I intervjuades studenter, lärare och simulerade patient, inom studie II intervjuades studenter och lärare. Inom studie II användes även en enkät som besvarades av studenter. I studierna undersöktes lärandeaktiviteter där simulerade patienter agerade personer i aktut kris. De simulerade patienterna, i dessa fall professionella skådespelare, gestaltade beteende med stort emotionellt påslag. Undersökningarna gjordes under termin nio vid läkarprogrammet, Lunds universitet.

Resultaten från studie I visade att studenterna upplevde att de lärde sig hantera utmanande patientsamtal genom att, i en säker miljö, kommunicera med en simulerad patient med en akut krisreaktion de inte var beredda på. De tvingades använda kommunikativa strategier som inte var planerade vilket gjorde att studenterna upplevde att deras ”kommunikativa repertoar” utökades. De rapporterade också att de fick perspektiv på sin professionella identitet genom att välja att vara antingen tröstande som privatperson eller hålla sig till sin professionella kommunikation. Den simulerade patienten i sin tur upplevde att ett flexibelt lärande skapades genom att scenariot utformades gemensamt, mellan den simulerade patienten och studenten. Denna flexibilitet gjorde att svårigheterna i samtalet anpassades till den enskilda studenten. Lärarna såg på det simulerade scenariot utifrån den professionella läkarens kommunikativa strategier ur, ett för studenterna, framtida professionellt perspektiv.

Resultaten från studie II visade att studenterna beskrev empatisk förmåga och självkännedom som centrala för att hantera utmanande patientsamtal. Att ha en god medicinsk kunskap beskrevs som väsentligt för empatisk kommunikation. Studenter och lärare beskrev det som centralt att inte dela upp lärandet av medicinsk kunskap och empatisk kommunikation. Det beskrevs utvecklande om lärandet att hantera utmanande patientsamtal inkluderas under en längre del av utbildningen. Det beskrevs en uppfattning att aktiviteter med simulerade patienter kunde utnyttjas bättre om erfarenheter av kommunikativa svårigheter från simuleringen inkluderas i närliggande undervisningsaktiviteter. Studenter och lärare poängterade att det bidrog till lärandet att kommunikationsförmågan inte formellt bedömdes under

patientsimuleringen. Det bidrog till att studenterna utforskade sina kommunikativa möjligheter.

Sammantaget visar avhandlingen att simulerade patienter upplevs ge möjlighet till professionell identitetsutveckling genom att studenter och simulerade patienter interagerar och tillsammans skapar kommunikativt utmanande situationer. Undervisningsaktiviteter med fokus på utmanande patientsamtal kan sammanvävas med andra relevanta undervisningsaktiviteter för att gynna upplevelsen av utveckling av kommunikativa kunskaper och färdigheter.

List of studies

Study I

Erici, S., Lindqvist, D., Lindström, M. B., & Gummesson, C. (2023). Three perspectives on learning in a simulated patient scenario: a qualitative interview study with student, simulated patient, and teacher. Advances in Simulation, 8(1), 10. https://doi.org/10.1186/s41077-023-00249-0

Study II

Erici, S., Westling, S., Lindqvist, D., Lindström, M. B., & Edelbring, S. Learning challenging patient communication via patient simulation: Student and teacher perceptions of the required knowledge and how to learn it. *In manuscript.*

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Abbreviations

SP	Simulated patient
CPC	Challenging patient communication
ZPD	Zone of proximal development
S	Student
T	Teacher

Introduction

Imagine that you are a physician, newly graduated from the medical school, in a primary care centre. You are encountering a patient with a slight headache and stomach problems. The patient is quite silent, but the encounter runs smoothly. You do not find anything that needs immediate treatment. Together with the patient you decide on a follow up by telephone in a month. Towards the end of the encounter, you ask the patient if there is anything else to talk about. The patient starts talking about sleep problems and suddenly the patient starts to cry heavily and talk, only saying short phrases between the sobs. You hear: "…a current hard time in life…there is no idea…embezzlement…it is all my fault...it hurts…". The patient cannot really stop crying and can hardly speak from crying. Deeply emotionally affected, you try to continue to communicate in a professional manner and at the same time decide on what to do, how to behave…but it does not go very well...

This is a communicative situation that physicians may encounter in their work. To manage such a situation, physicians must know how to handle challenging patient communication in a professional context. Challenging patient communication is typically seen as a communicative situation that places emotional burden on both the patient and the physician (Studer et al., 2017). To successfully manage such communication, physicians need to know how to handle emotions – both their own and the patient's. Development of the relevant knowledge and skills for effective communication starts during medical education (van Weel-Baumgarten et al., 2012).

This thesis explores how undergraduate medical students and teachers perceive the learning of relevant knowledge and skills for handling challenging patient communication to prepare for situations like that narrated above. Specifically, the thesis focuses on the use of activities involving simulated patients (SP), i.e. healthy individuals portraying patients, and how they relate to adjacent learning activities and the overall medical curriculum.

I begin with a brief summary of relevant theories on learning in general. From there, I proceed to perspectives on learning activities related to handling challenging patient communication. Finally, I describe the role of SPs in experiential learning of challenging patient communication and the place of the activities in the medical curriculum.

Background

Learning

In this thesis, I situate learning in the constructivist paradigm described by Bada and Olugsen (2015). According to behaviourism and cognitivism, students (i.e. learners) relate to knowledge as an externally defined phenomenon to be learned. By contrast, constructivism assumes that students are active constructors of their knowledge based on previous experience, perceptions, and knowledge (Bada & Olusegun, 2015). In other words, students are not *provided with* knowledge, but *construct* their knowledge. However, educational goals, such as those for medical education, are still externally defined by educational institutions (e.g. universities) (Baker et al., 2021). For the educational institution, following a constructivist approach implies that the teachers and the institutions should facilitate the construction of knowledge and skills in students. To facilitate this process, learning should be active and student centred (Collins & O'Brien, 2011). Students should be engaged in activities that let them reflect on and assess their own progress and the process of learning. They should also have influence over the content, learning activities and pace of learning. This learning model puts the student at the centre of the learning process (Collins & O'Brien, 2011). To learn how to handle communicative situations like the one in the vignette it is feasible to learn through experience to construct knowledge and skills in a student centred way. As an analogy, it is impossible to master the violin without experiencing playing the violin. In this thesis, the theory of experiential learning is used as a basis for understanding the learning process (Kolb & Kolb, 2017; Kolb, 1984). Kolb describes how, within the constructivist paradigm, learning is a continuous process of transforming experience into knowledge and/or skills.

Kolb defines four stages in learning from experience: 1) concrete experience, 2) reflective observation, 3) abstract conceptualization, and 4) active experimentation (Figure 1).

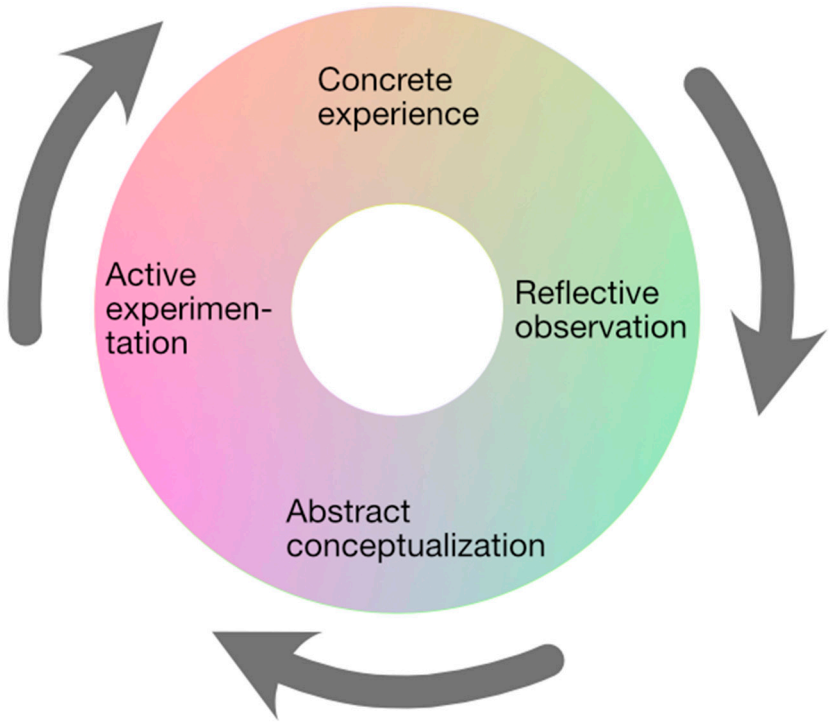

Figure 1. The cycle of experiential learning (Kolb, 1984).

Experiential learning proceeds through this four-stage process. In the first stage, the student has a concrete experience. This proceeds to reflective observation, during which the student reflects on that experience through the lens of their previous experiences, feelings, and thoughts. From this they engage in an abstract conceptualization, where the student applies ideas, concepts, and theories to abstract that concrete experience. Finally, the student engages in active experimentation, wherein they test the concepts and theories in a similar situation as the initial concrete experience. The foundation of this model is its conceptualization of learning as a continuous process. Applying this to the vignette in the introduction, the physician initially experiences a challenging communicative situation (concrete experience). Then, the physician can reflect on the situation, the emotions, and reactions it evokes, maybe together with a colleague (reflective observation). The physician may then merge that experience with previous knowledge – including theories and skills they previously learned – to abstract it into a new communicative strategy (abstract conceptualization). Finally, the physician can practice that new strategy in a similar situation to create a new concrete experience (active experimentation). Then the cycle can start all over again.

Another applicable learning concept is the zone of proximal development by Lev Vygotsky (Cushing, 2015; Vygotsky & Cole, 1978) (Figure 2). The zone of proximal development can be visualized as the distance between a student's current level of competency and the highest possible level of competency that they can achieve. Below their current level, no learning occurs because the student already knows everything; above the highest level of knowledge that the student can achieve at the moment of learning, no learning occurs because the student cannot conceptualize the object of learning. Learning thus happens in the zone between what the student already knows or can do and what the student does not know or is not able to do. Within the zone of proximal development, learning can be facilitated if there is a more knowledgeable other present to support and guide the student. The more knowledgeable other should have the ability to take the student's perspective and facilitate the learning process. It can be tempting for a teacher to position themselves as the more knowledgeable other, but as articulated by Wieman (2007), an experienced teacher might not be capable of putting themselves in the shoes of a novice student. Peers are suggested as a better option (Vygotsky & Cole, 1978). Applying the zone of proximal development in learning to handle a case like in the vignette; the physician may think it is impossible to learn how to handle such a communicative situation at that moment. However, were they accompanied by a more knowledgeable other, the physician might be encouraged to stay in the zone of proximal development and thus learning.

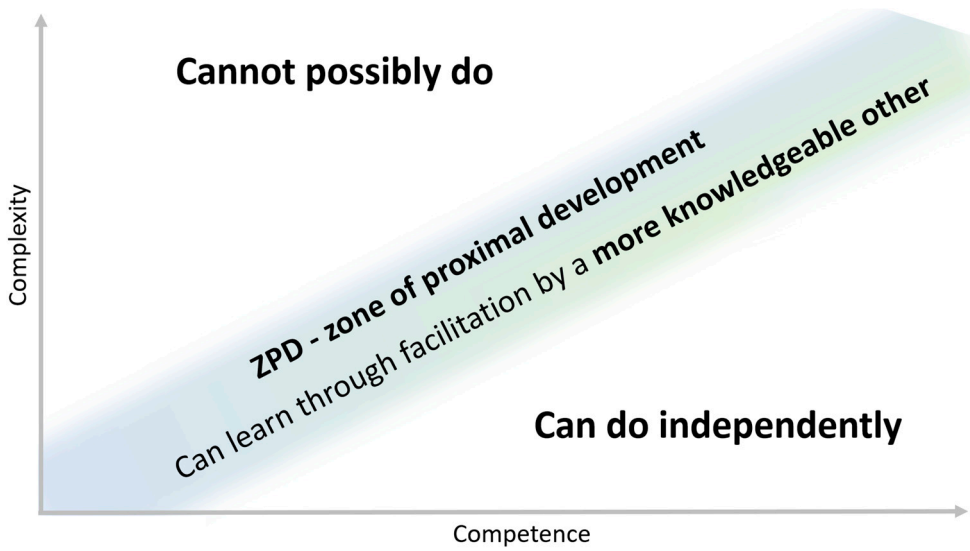

Figure 2. The zone of proximal development is situated between what the student (learner) can do independently and what the student cannot do by themselves. Learning occurs in the zone of proximal development, making it profitable to be facilitated by a more knowledgeable other.

Patient Communication

Professional communication in medical settings has multiple purposes. As described by Street et al. (2009), it acts as inquiry into the patient's problems to find a plausible diagnosis, plan treatment, and communicate these to the patient; at the same time, it can also help to bring about intermediate outcomes (e.g., build trust, mutual understanding, adherence to treatment, social support, self-efficacy) associated with improved health. Physician–patient communication ideally should lead to a decision on which both the physician and the patient have agreed (Bomhof-Roordink et al., 2019). Furthermore, patient communication should possess two fundamental attributes that assist in attaining the outcomes outlined by Street et al. (2009): namely, the physician should be able to convey both empathy and relevant medical knowledge to the patient (Halpern, 2014). In medical practice, these two combines to form 'clinical empathy' (Halpern, 2014), which Halpern defines as '*engaged curiosity*, *in which the clinician's cognitive aim of understanding the patient's individual perspective is supported by affectively engaged communication'*. I use Halpern's (2014) definition because its two elements – cognitive understanding and affectively engaged communication – can accurately describe the demands of the communication explored in this thesis.

Studies have found that medical students' empathy declines during the clinical semesters and stays low until graduation (Graf et al., 2020; Hojat et al., 2009; Howick et al., 2023). Howick et al. (2023) attribute this trend to increasing complexity in patients' symptoms, physicians' workloads, poor role models and prioritization of medical knowledge. In the context of patient communication, communicating medical knowledge is often placed in opposition to empathic communication (Rieffestahl et al., 2021). It can be demanding for physicians to balance these two aspects of communication, which can lead to higher emotional burden (Aper et al., 2015; Shapiro, 2011); this is especially true during challenging patient communication, where both aspects are considered important (Toivonen et al., 2017). Medical students may focus on communicating medical knowledge without addressing the patient's need for empathy (Brodahl et al., 2021).

Professional identity formation

Developing the ability to balance communication of medical knowledge and empathy can be described as a part of physicians' professional identity formation. This process describes students' gradual development of a professional identity or self, which entails internalizing beliefs, values and behaviours associated with the profession into their existing self (Sarraf-Yazdi et al., 2021). Medical education should thus emphasize supporting students in developing their own the professional identity (Cruess et al., 2014), which starts when students enter medical education and does not stop developing when they become active physicians (Monrouxe,

2010). Monrouxe states that *'identities are developed within relational settings through activities, and relationships are central components of identification'*. In the clinical setting, identity formation can be supported both through viewing role models (Dornan et al., 2015) and encountering patients (Wilson & Dunn, 2004).

When developing a professional identity, development of self-knowledge[1] can help medical students recognize their own emotional and value-driven responses to patients (Hughes et al., 2008). Developing self-knowledge is also a crucial aspect of patient communication. Self-knowledge is an aspect mentioned in the medical education programme syllabus explored in this thesis; '*Students must demonstrate self-knowledge and a capacity for empathy and must demonstrate an ability to take an ethical and professional approach to patients and their family members'* (Lund University, 2021b). In this thesis, self-knowledge as a concept is explained as the ability to recognize one's own emotional and communicative reactions in professional situations.

Challenging patient communication

A challenging patient communication situation can be defined in several ways (Fallowfield & Jenkins, 2004; Hahn et al., 1996), particularly in terms of what makes the situation challenging. There can be challenges in understanding due to differences in language (Johnston & Beckman, 2019) or challenges due to patients having unmet expectations of the physician (Jackson & Kroenke, 1999). As physicians get more experienced, they may perceive patient communication as less challenging because of their increasing communicative experience (Hinchey & Jackson, 2011). One generally applicable definition of challenging patient communication is if the communicative situation places an emotional burden on all participants in the communication, such as breaking bad news or communicating with suicidal patients, patients in acute crisis, or aggressive patients (Doyle et al., 2007; Fallowfield & Jenkins, 2004; Nestel et al., 2011). Such communicative situations can be stressful for medical students (Weurlander et al., 2019) as well as professional physicians (Studer et al., 2017). However, it is medical professionals' (and hence the students') responsibility to handle both their own emotional burden and the patients' (Willis et al., 2020). In this thesis, I explore challenging patient communication situations wherein there is a tentative emotional burden on the involved communicative parties.

[1] Self-knowledge and self-awareness are closely related concepts in the same domain. In the Cambridge dictionary self-knowledge is defined as *'an understanding of yourself and your abilities'* (2023b) and self-awareness as *'good knowledge and judgment about yourself'* (2023a). In this thesis we have adopted the concept self-knowledge.

Learning to manage challenging patient communication

Learning of communication skills should be longitudinal and included in any medical curriculum (Bachmann et al., 2022). To avoid the observed decline in empathy in students, medical curricula may build a longitudinal progression in relevant skills, which includes those related to the development of patient centred communication (Bachmann et al., 2022; Willis et al., 2020). Baessler et al. (2019) explored how many and when learning activities related to emotionally challenging situations were placed in a medical curriculum. They found that such learning activities tend to be concentrated in the psychosocial rotations (e.g., psychiatry) over a restricted period; this lack of learning activities on handling challenging patient communication in other rotations does not support progression (Baessler et al., 2019). Indeed, the theory of variation in learning by Marton and Booth (1997) states that learning can be promoted by deliberately setting learning activities on a given subject in different contexts, which supports students to develop different views on critical aspects of the subject. This supports deep and meaningful learning. The variation theory is in line with Bachmann et al.'s (2022) suggestion that learning patient communication should be integrated with the learning of medical knowledge. According to Baessler et al. (2019), experiential learning activities in specialties other than psychosocial specialties may be one viable method of learning to handle challenging patient communication.

Simulated patients

When medical students should develop proficiency in communicating with patients like the one in the vignette, according to experiential learning, they should have concrete experiences (Kolb, 1984). However, it is often difficult to set up experiential learning activities on managing challenging patient communication with actual (*real life*) patients because of their potentially vulnerable state (Willis et al., 2020). Utilizing SPs is one way to circumvent this challenge (Bukowski et al., 2022; Moura et al., 2021). Encountering challenging patient communication in simulated activities can support medical students' development of a professional identity (McLean et al., 2015; Tien et al., 2019) early on in their education. This is in part because such activities provide students with the opportunity to experience ownership over the entire patient encounter (Tien et al., 2019).

Simulation in medical education has a long history (Rosen, 2008). Using simulation in medical education presumes humans' ability to believe in fiction and behave in a fictional situation "as if…" it is authentic, whether it is technically mannequin based or human based (Dieckmann, Gaba, et al., 2007; Isaksson et al., 2022; Muckler, 2017; Muckler & Thomas, 2019). Simulation has been practiced since the start of the twentieth century, when medical education shifted from an apprenticeship model

to more institutionalized measures of knowledge, skills and behaviour (Rosen, 2008). The modern way of using SPs was introduced by Howard Barrows (1964). He observed that the medical students did not receive sufficient training in clinical skills or patient encounters, so he hired people to portray patients to provide students with the opportunity to practice these skills. By using predetermined patient scenarios, Barrows could decide on the learning outcomes for students and create safe training conditions for both students and patients. He also developed strategies for assessing clinical skills with standardized scenarios to allow for comparable assessment of students' clinical skills. The term 'simulated patient' is often used interchangeably with 'standardized patient' (Barrows, 1993; Cleland et al., 2009; Lewis et al., 2017), but they are often seen as distinct, with 'standardized patients' being used for assessment and 'simulated patients' for training (Cleland et al., 2009). In this thesis, "simulated patients" is used because the included studies are set in training contexts. When portraying an SP, the acting person can more or less react freely if they support individual students' learning, but the case and background script should still be standardized across all students.

Scholars have different views on the prerequisites for recruiting SPs (Cleland et al., 2009; Kuhne et al., 2018). In some universities, only lay persons are recruited (Rethans et al., 2012) while other faculties use professional actors (Mavis et al., 2006; Pascucci et al., 2014). The benefits of using lay persons are that they can generally be hired at a lower cost per hour as compared to professional actors (Lipkin, 2017). The benefits of using professional actors are that they can be better able to be consistent over time in their portrayals and can more easily be directed to change features of the character to support learning (Pascucci et al., 2014). Another aspect can be the need for debriefing, particularly when portraying a patient in very difficult circumstances (Kuhne et al., 2018). A lay person may need more debriefing time after the simulated event than a professional actor, who is used to stepping in and out of demanding characters.

Arguments for using simulated patients

In work-based learning with actual patients, it is impossible to guarantee that all students will encounter similar situations (Bokken et al., 2008; Cleland et al., 2009). Moreover, it is not feasible to let students practice with actual patients for all clinical situations, patients in a vulnerable state (e.g., after a suicide attempt, breaking bad news). Thus, using SPs enables more equal education by letting all students learn in identical clinical settings tailored to the students' needs, in an ethically approved way without inconveniencing actual patients and students (Cleland et al., 2009; Dale MacLaine et al., 2021).

The safe learning conditions provides the student with greater freedom to try strategies outside their normal communicative behaviour, which in turn may benefit

their development (Bearman et al., 2019). It is favourable for learning to set up non-graded SP activities where students can try different communicative strategies without fear of formally assessed failure (Grau Canét-Wittkampf et al., 2022). Indeed, Bearman and colleagues (2019) argues that things going wrong in a simulation is essential for learning.

Fidelity and authenticity

Authenticity (*realism*) is much discussed in the world of simulation (Kneebone, 2016). '*Realism is a relative concept to all involved, what is real to one person may be unreal for another'* (Smith et al., 2015). Authenticity can be described from two perspectives. One is from the perspective of the simulated situation, i.e. the extent to which it mimics the real world. Better conformity with real world situations makes for a more authentic simulation, otherwise known as a high-fidelity simulation (Lioce et al., 2015). High-fidelity simulations are considered to be able to evoke real world situations through paying attention to details, including the props, sounds, reactions, etc. (Dunnington, 2014).

The other perspective on authenticity is the extent to which the simulation balances students' approach to learning with the learning objectives (Dieckmann, Manser, et al., 2007). If the students accept the learning outcomes, rules, and circumstances around the simulation, detailed portrayal of the real world is not crucial for learning (Hamstra et al., 2014; Rystedt & Sjöblom, 2012). Indeed, it is not necessary to have a high-fidelity simulation to create authentic learning conditions. For example, if the objective of the simulation is to practice only one aspect of a skill, a low-fidelity simulation would still offer a learning experience argued by Teteris et al. (2012). Articulated by Hamstra et al. (2014), students actively attempt to make the learning context relevant to their purposes. It is thus more meaningful to discuss fidelity in terms of learning than in terms of the setting and structure of the simulation. If the learning activity focuses on a communicative situation like that in the vignette of this thesis, it may not be necessary to have external fidelity (e.g. clinical room, props). Rather, it is crucial that the SP's representation of the patient supports the medical student's development of the desired communicative outcomes.

If the organizer of the simulated activity and student both agree on the external circumstances of the simulated situation, they can be said to have signed an immaterial "fiction contract" (Rudolph et al., 2014). With that agreement, it is easier to suspend disbelief and achieve authenticity. With the fiction agreed on the SPs performance play a particularly role in creating a sense of authenticity in challenging patient communication (Pascucci et al., 2014; Smith et al., 2015). Utilizing professional actors as SPs can be beneficial in simulated scenarios on challenging patient communication (Bell et al., 2014; Pascucci et al., 2014).

Feedback

Feedback is vital for learning in simulations as it allows the students to reflect on the activities. The progression of learning can be supported by placing the students' experience of the activity into the context of their future professional activities (Rivière et al., 2019). Feedback can be experienced at three different points during an SP activity: during the scenario, during short mini breaks, and after the scenario has terminated (Eppich et al., 2015). Providing immediate feedback during the scenario occurs when the SP reacts in character to provide the student feedback on a certain behaviour (Lovink et al., 2021). This should be done with the learning outcomes in mind to support the students' development. This kind of feedback is not recognized as feedback by the student but a part of the natural flow of the scenario.

A typical example of immediate feedback from a simulation is as follows:

> Student: "*I understand why you are feeling sad."*
>
> SP: *"You cannot possibly understand me. You don't know anything about my feelings."*

In this case, the student receives immediate feedback that they cannot take the patients' perspective, meaning that they should choose a more appropriate way of expressing compassion.

Feedback can also be given during short breaks in the scenario (Mulli et al., 2021). Students can call "time out" whenever they want, preferably in a learning juncture (Mulli et al., 2021), causing the SP to freeze all action. During this pause, which may last for a couple of minutes, the involved students should share their experiences between each other (Mulli et al., 2021). This allows the student to try a strategy they have discussed when they return to the scenario. This differs from immediate feedback during the scenario in that the student deliberately reflects on the feedback from others of their actions in the scenario.

Finally, students can obtain feedback after the scenario has terminated (Eppich et al., 2015). The purpose of this feedback is to provide more in-depth reflections on the handling of the SP case and even to set this in the context of the bigger picture such as other learning activities, learning outcomes etc., and other students' experiences. The overall aim with all feedback should be to give future-oriented feedback addressing what students should do in the future (so called "feed forward") (Masangkay et al., 2022).

Simulated patients' relation to teaching

The SPs should be aware of their responsibility in the teaching process; accordingly, they should have the learning outcomes clear and deliberately include them in their performance (Nestel et al., 2018). They also need to be flexible enough to address

individual students' challenges but still adhere to their fictional character and case. They must make choices rapidly during the scenario to enhance students' individual development of communication skills (Pascucci et al., 2014). In this case, the SPs can take the role of a more knowledgeable other who can support students' learning (Tolsgaard et al., 2016). SPs also have a vital role of providing feedback from the patient's perspective, which can promote learning from patient simulation activities (Fowles et al., 2023; Isaksson et al., 2022).

Challenges in using simulated patients

The transfer of learning from a patient simulation to other situations cannot be taken for granted (Nash & Harvey, 2017). Indeed, the simulated situation can differ from an authentic clinical situation to the point that it hampers transfer of learning (Nash & Harvey, 2017). One overarching disadvantage with patient simulation when compared to actual patient situations is the difference in power balance put forward by Hanna and Fins (2006). In an actual patient encounter, the patient often has less knowledge of the physicians' decision-making, which skews power and responsibility in favour of the physician. This is a disadvantage in using SPs because power relations can affect students' approach to the communicative situation and how they reflect on it. Accordingly, as observed by Yardley and colleagues (2013), there can be a gap between the experience of a patient simulation and an actual patient encounter. If students participate in numerous patient simulation scenarios, they may develop a sense that they are performing as a physician. A way to address these disadvantages is to balance patient simulations with actual patient encounters and reflect on the differences between these settings (Yardley et al., 2013).

Overall aim

The overall aim of this thesis is to explore how medical student perceive development of essential knowledge and skills to manage challenging patient communication and how these perceptions align with the curriculum and SP activities. The thesis consists of two studies exploring:

- three perspectives (student, teacher, SP) on learning during an SP scenario on challenging patient communication;
- students' perceptions of knowledge and skills beneficial for challenging patient communication and the learning thereof; and
- the role of patient simulation in the perception of learning to handle challenging patient communication and how this aligns with adjacent learning activities.

Method

The research in this thesis locates its ontological and epistemological assumptions in social constructivism, according to which knowledge is constructed in interactions between human beings (Guba & Lincoln, 1994). Research forges a link between the investigator and object of investigation, through which knowledge is created.

Both studies in this thesis utilize qualitative methodologies, which are well suited for social constructivist research. A qualitative approach allows the investigator to explore multiple realities based on subjective experiences and interpretations. Inductive and deductive approaches are applied.

Design

The studies in this thesis explore how medical students, SPs and teachers perceive learning of challenging patient communication in the 9th semester of a medical education programme.

Table 1. Overview of the study design

Study	Design	Data collection	Participants	Data analysis
1	Inductive	24 semi-structured interviews with stimulated recall	8 students 3 teachers 1 SP	Content analysis
2	Inductive/deductive	Narrative survey 9 semi-structured interviews	19 students 5 students 4 teachers	Reflexive thematic analysis

Study context

Since 2013, SP activities have been used to train students in various aspects of challenging patient communication at the medical education programme at Lund University. At the time of Study I (performed in 2016) only one SP activity was included, on the 9th semester. At the time of Study II (performed in 2022), the program included three SP activities, on the 6th, 8th, and 9th semesters, all on handling different challenging patient communication.

Both studies were performed in the medical education programme at Lund University, Sweden, during the 9th semester. After completing this semester, students are allowed to work as assistant physicians in the Swedish health care system. The semester was at the time of the study divided into three major rotations: psychiatry, paediatrics, and obstetrics/gynecology. The entire student group was divided into three groups attending the different rotations sequentially. On all rotations it was possible for students to participate, either as observers or in the communicating role, in challenging communication with actual patients. However, SPs were included only in the psychiatric rotation.

The SP cases used in the study focused on patients in acute crisis (American Psychiatric Association, 2013). All cases included challenging communication characterized by emotional burden, e.g., suicidality, grief, shame, anger. The cases were classified as challenging by staff and former students. The settings in the simulated scenarios were either a psychiatric emergency department or a primary care centre. A script for each case was elaborated by the teachers in collaboration with an SP coordinator. The SP read the script several times and adhered to the character, emotional state and background but had flexibility to improvise within these frames in response to the student's communication. All cases were performed by professional actors.

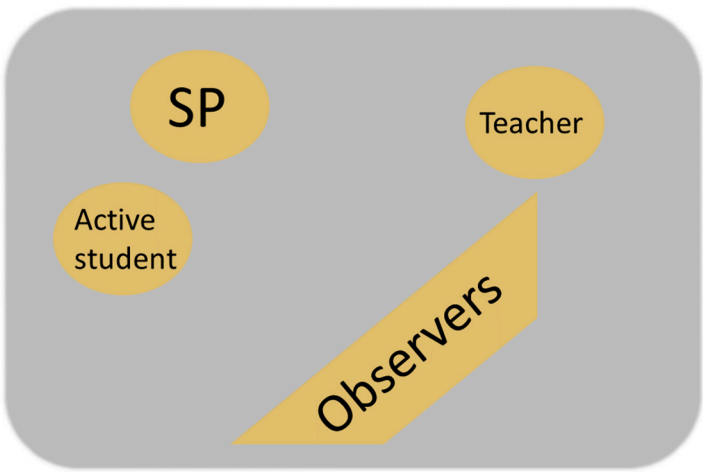

Figure 3. The learning activity was situated in an ordinary small classroom with usually 2 or 3 observing peers.

The students were divided into small groups consisting of 3 or 4 students and a teacher (Figure 3). One student was assigned to take the role of physician and to engage in the patient communication. The others were active observers ready to provide feedback. Most of the simulations started with the SP sitting outside the

room. The "physician" was supposed to go out and invite the SP into the room. The student in the role of physician could call "time out" for feedback in action, the students could discuss communicative strategies or replace the student in the role of the physician. When the discussion was over, the student in the role of physician called "time in" and the scenario continued. After the scenario, a feedback session including everyone in the room, following a pre-determined structure. The scenario lasted around 25 minutes, with the final feedback session lasting around 20 minutes.

Patient communication in the local curriculum

Medical education in Sweden is regulated by the government through the Higher Degree Ordinance (Högskoleförordningen, SFS 1993:100). This ordinance articulates what a student who has completed medical education should be able to demonstrate in terms of knowledge and skills as well as stipulates that all medical education programmes should have a programme syllabus as well as course syllabi. These syllabi should provide direction for assessment and frame students' learning activities.

The syllabi were used in Study II to relate perceptions of learning activities on challenging patient communication to learning outcomes and program guidelines. At the time of the study, 2022, the medical education at Lund University was divided into two levels, basic and advanced, articulated in the medical programme syllabus (Lund University, 2021b). The basic level addressed mainly biomedical knowledge, physiology, anatomy, etc., whereas the advanced level addressed mainly knowledge and skills in clinical situations. Educational activities at the basic level generally took place on campus, while at the advanced level the activities were mainly located in clinical rotations at health care departments.

At the time of the study II the course syllabi for the medical education at Lund University covered patient communication increasing in complexity and number of learning outcomes with each subsequent semester (Lunds Universitet, n.d.). After a review of the documents applicable learning conditions and outcomes from the programme syllabus and relevant course syllabi for this thesis were as follows:

Medical programme syllabus

> *'The programme will bring the student into contact with patients throughout the programme, with training in conversational methodology and good patient-physician relationships'* guideline (Lund University, 2021b)

'*Students must demonstrate self-knowledge and a capacity for empathy and must demonstrate an ability to take an ethical and professional approach to patients and their family members'* outcome (Lund University, 2021b)

***Course syllabus** (9th semester)*

'The students should be able to conduct a structured conversation with a patient suffering from acute emotional distress and report it to a colleague' outcome (Lund University, 2022)

'The students should be able to apply a professional method in the work with patients in vulnerable situations' outcome (Lund University, 2022)

Study participants

In Study I, students, the participating SP, and teachers who had been involved in SP activities were given information and asked for consent to participate. At the time of the study, 32 students on the 9th semester were possible to recruit. Recruitment started with providing information about the study to all potential participants during a lecture and then inviting them to take part. Eight students volunteered. The participating students were rewarded with a movie ticket. Three teachers with special interests in working with SPs and the SP involved were also invited and agreed to participate. At the time of the study, only one SP scenario could be included in the study because of the small number of patient simulations. All participants provided informed consent.

In Study II, students from all rotations in the 9th semester (n=113) were invited to take part, regardless of whether they had completed their SP activities during the semester. Initially, all students received information about the study verbally during a lecture. Subsequently, they were invited by e-mail to answer a narrative survey. After three reminders, 19 students participated. Five students of these 19 students also accepted to participate in a one-on-one follow-up interview. Additionally, six teachers from the three 9th semester rotations were invited to participate in one-on-one interviews. Three teachers were approached in their roles of being responsible for one each of the three rotations on the semester, and three others were approached in their roles as teachers in the SP activities. Four teachers accepted the invitation (two of them responsible for a rotation, two being involved in the SP activities).

Most students in both studies had completed up to the 9th semester of their medical education at Lund University. No one had experienced SP activities outside their medical education.

Data collection

In Study I data was collected during March 2016 using one-on-one semi-structured interviews. We employed stimulated recall, meaning that interviewees watched a video of an encounter of their own to support memory and narration (Lyle, 2003). The interviews were made as soon as possible after the simulated patient activity, 1 – 2 weeks, to ensure adequacy in the recall (Dempsey, 2010). I performed most of the interviews except the interviews with the SP, which was done by another member of our research group, due to my close working relation as an instructor of the simulated scenario. I had no prior relation to the interviewed students and I had a professional working relation to participating teachers. The interviews lasted 15–30 minutes and were all performed in real life.

For Study II, a narrative survey and a series of one-on-one interviews were conducted from March to June 2022. We did a pilot study where we collected data using these methods from two students each. After the evaluation by the research group, we decided to use a narrative survey with the option to perform additional interviews. The survey contained 6 open-ended questions and one additional question asking if the respondent would be open to an additional interview. With respect to questions and design, the survey was created to inspire the participants to give rich answers (Smyth et al., 2009). After the pilot phase, the survey underwent minor revisions. After reading completed surveys, we performed interviews with the five students who had given consent. The interviews with the students and the teachers were one-on-one, semi-structured, interviews. All interviews were performed in person or on Zoom and lasted 20–40 minutes. The different settings for the interviews were for logistical reasons.

All interviews were transcribed verbatim by persons outside the research group due to time restrictions. The transcriptions were thoroughly checked for accuracy by me.

Data analyses

Qualitative analyses were used in both studies. The first step in the analysis process in the studies was to read the transcripts multiple times to get an overall sense of the material. In Study I, we used qualitative content analyses (Graneheim et al., 2017; Graneheim & Lundman, 2004), proceeding step by step from the manifest content to increasing levels of abstraction and interpretation. Qualitative content analysis was selected because of the homogenous nature of the data, which allowed us to move in a stepwise manner from an understanding of what participants had actually said towards an understanding of the latent meaning (Lindgren et al., 2020). In Study I, we used an inductive, data-driven, approach to create themes from data. We analysed data from detailed characteristics on a manifest level and abstracted it to a more general and theoretical understanding (Graneheim et al., 2017). The inductive

approach was used to generate an overall framework for the object of study. Ultimately, three major themes were created.

In Study II, reflexive thematic analysis (Braun & Clarke, 2022) was considered suitable because of the heterogenous nature of the data, originating from a narrative survey and interviews. The method of analyses allowed generating themes in a flexible way. We used both inductive and deductive approaches for analysing the data. The student data was inductively analysed to create a framework. Subsequently, based on this framework derived from the student data, the teacher data was deductively analysed and related to the student data (Figure 4), resulting in teacher subthemes that mirrored student themes. A deductive approach is concept driven, meaning that data is analysed through an interpretative lens of a concept or idea (Braun & Clarke, 2022). Analysing the teacher subthemes based on the student thematic framework, we could explore differences and similarities between these groups, which ultimately made the analysis richer.

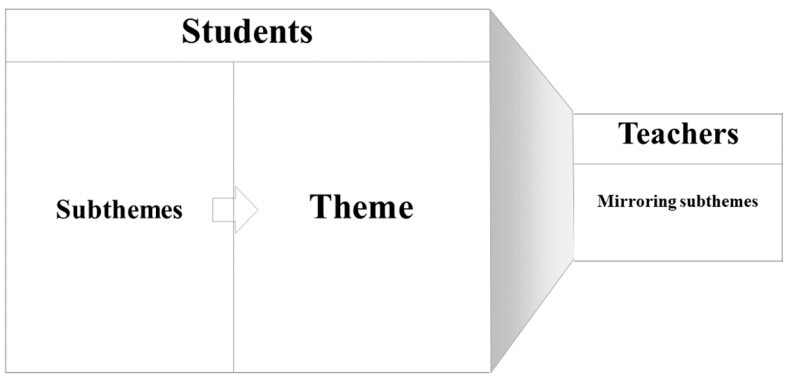

Figure 4. The process of generating meaning deductively in Study II by mirroring teacher subthemes in student themes.

Methodological considerations

A qualitative approach was chosen to explore the perceptions of students, teachers, and an SP on educational activities and learning. However, there are always methodological concerns that the researchers must consider to maintain scientific rigor. Assessing scientific rigor can be made in different ways depending on the aims, methodology and assumptions of the research (Finlay, 2006).

The trustworthiness in qualitative research may be conceptualized through its credibility, transferability, dependability, confirmability, and reflexivity (Graneheim et al., 2017; Korstjens & Moser, 2018; Nowell et al., 2017).

Credibility concerns the sensemaking of data in the analysis. In this thesis, several different methods for triangulation was applied (Kitto et al., 2008). The triangulation with the different methods of data collection was considered to support credibility. A potential way to further strengthen credibility in this thesis, would have been to include the curricular documents as data in the analysis in Study II. Moreover, investigator triangulation was used during the analysis, which involved regular meetings within the research group to discuss coding and interpretation of data. The composition of the research group with different educational backgrounds strengthened the impact of investigator triangulation.

Transferability of what the research findings can bring to other settings is dependent on consideration of contextual conditions. To support transferability participants were thoroughly described according to their formal relation to, and experience in medical education. An important aspect was their prior experience in handling challenging patient communication. A detailed description of the different steps in the research process were included to support transferability judgement.

Dependability refers to the consistency over time in the research process. This was supported through a detailed description of the analysis methods and the use of quotes, to make it possible to follow the interpretation process from the raw data to the generated themes.

Confirmability refers to how interpretations and findings derives from the data. My thorough pre-understanding and deep involvement in the object of the study was continuously challenged by the other members of the research team in the process of interpreting data (Graneheim et al., 2017). However, despite aims to coop with it, my involvement presented a potential risk of bias. Some of the participating teachers were involved in educational activities coordinated by me. To reduce possible bias, it was clearly stated during data collection, that the purpose of the interview was research and not work. Moreover, there were no relation between the students and me outside the research project, which decreased the risk of participation bias.

Reflexivity is a concern in qualitative research and in this thesis. Researchers' preconceptions will affect the choices made in the research process (Malterud, 2001). I was very involved as a founder and coordinator of the learning activity and had thorough knowledge of several aspects of learning activities with SPs. The other members of the research team had diverse backgrounds with varied relation to working with SP, two had experience of working with SPs, four had no experience. It is plausible that the interpretation of the data was biased by the relation to the object of research. To reduce that bias, we frequently reviewed the analysis with different members of the research team, challenging our interpretations of the data from different points of view.

In this thesis three different methods of data collection are utilized. Stimulated recall used in Study I, supported memory of the recorded activity (Lyle, 2003). Using stimulated recall can also enrich the data by letting the participants discuss their communicative strategies while confronted of a recorded example of their own (Dempsey, 2010). It is at risk that participants change their normal behaviour during the recorded session of an interaction because of the sensation of being observed (Dempsey, 2010). In the explored cases in this thesis the setting already included observers which could decrease the risk of behaviour change. An interesting way of collecting data would have been to include stimulated recall in a focus group setting, e.g. letting the three participants (student, SP and teacher) watch a recorded SP activity together while being interviewed. This may enhance the depth of the different perspectives.

The reason for using a narrative survey for collecting data in Study II was to reach as many students as possible to obtain diverse perspectives, described as "a wider lens" by Braun and colleagues (2021). Another reason is that the anonymity of an online survey can facilitate answering questions (Braun et al., 2021). After reading the answers of the survey a decision was made to perform additional interviews, to obtain richer data (Braun et al., 2021). The narration in the answers and the number of answers made the additional interviews a feasible option.

The interviews with the teachers in Study II were performed one-on-one. Given that the teachers had diverse backgrounds and specialties a focus group interview could have supported diverse elaboration on the topic (Gibbs, 1997).

The recruitment process of student participants in Study II might have influenced characteristics of the collected data. Since all participants had actively chosen to take part in the study after receiving invitation, they might have had a positive initial perception of the learning activity. This could potentially limit the information power with regards to sample specificity related to study aim (Malterud et al., 2015). More diverse perspectives to explore the complexity of the project might not have been elucidated. If the data collection had been coordinated with a regular programme assignment, encouraging greater student participation, a more diverse perspective might have been achieved.

In Study II, six of the nine interviews were performed via video interviewing for logistical reasons, using the Zoom platform. Video interviewing is considered to be a distant technique more similar to face-to-face, as compared to interview by telephone (Saarijärvi & Bratt, 2021). However, there is a risk of missing the full picture of participants responses, such as body language and other non-verbal cues, which can influence communication during the interview. Video interviewing also presents a risk of technical problems in transmission of sound and picture, and the researcher must confirm that confidentiality is secured by asking if the interviewee is alone in the room (Saarijärvi & Bratt, 2021). The different modalities of interview could have influenced the data collection of the interview part in Study II. I as the interviewer thoroughly compensated for the differences in modality by checking confidentiality and asking detailed follow-up questions if anything was unclear.

Ethical considerations

Ethical considerations should be made for all research involving humans to prevent any harm or inconvenience for the participating persons. The participants should feel no threat to their dignity or well-being. Both studies were performed in accordance with the principles for research involving human subjects outlined in the Declaration of Helsinki (World Medical Association, 2013) and were approved by the Swedish Ethical Review Authority (Dnr: 2015/853 and 2021-06547-01). For both studies, the review authority deemed an advisory opinion to be sufficient since the nature of the data was not sensitive and the research did not include any intervention. Furthermore, the activities needed for the research were performed within normal study or work activities. During the analysis, data codes were used and the data was not traceable to any specific participant. Only me as the main author had the code key.

Results

This section contains a summary of the results from the included studies, beginning with themes on learning during an SP scenario, followed by a section of themes on learning to handle challenging patient communication with SP activities in a programme perspective.

Identity formation

Students perceived that the emotional load and sense of being surprised caused by the simulated scenario could support the development of their professional identity. The emotional load in the scenario forced the students to make choices about the communicative strategies they used, either using a private comforting strategy or a medico-professional one *'As my private self, I really just want to say to the patient, 'Cry!' But now I'm a doctor so I want her to talk.'* (S [Student]). The conflict between these two strategies allowed students to get a better perspective of their role as a professional physician. Students also reflected on the sometimes powerful moments of learning resulting from encountering unexpected reactions from the SP in a safe situation *'Yes, it is probably some sort of reaction of fear. A little bit, anyway. Thus, learning.'* (S).

Crucial for students' learning in the simulated situation were the teachers' preparational activities. These activities supported the students to suspend disbelief by letting them understand the detailed structure of the activity and the possibility of trying different strategies in a safe setting.

Collaborative learning

The SP and the students reported that learning was a mutual creation. The SP described the creation of a learning space between the student and SP, where both influenced the action and learning *'It becomes more or less varied, and it depends on their attitude and how they approach the communication.'* (SP). The SP had the script in mind the whole time so they could, to a certain extent, direct the scenario in a way that enhanced the individual student's learning. With help of the scripted case, the SP created a sense of an emotional load to set student in their zone of proximal development.

Learning intentions

The teachers viewed students in the SP scenario as a possible future colleague *'Can he make sure that he will keep that, he will become a good doctor!'* (T [Teacher]). When the SP and the student discussed aspects of the present communicative situation, the teachers assessed students' performance based on their experience of what constitutes valuable communicative strategies for the professional future of the student. This future-oriented perspective on learning was more distant from the scenario than were the students' and the SP's. Nevertheless, it stressed that the activity had value for the students' professional future.

Five themes were generated on perceptions of vital knowledge and skills to handle challenging patient communication, and how to learn these in a programme perspective. Of particular interest was how SP activities related to adjacent learning activities.

Knowing oneself as a communicative partner

The importance of knowing oneself as a communicative partner was regarded as helpful for handling challenging patient communication. The students emphasized the need to know their own reactions and what emotions can be elicited in such situations described by a student as important to know *'One's own strengths but also one's anxieties and apprehensions'* (S). Students also highlighted the significance of making the communication patient-centred, knowing when and how to ask questions to ensure patient understanding. Learning to stay present during emotionally intense encounters was another perception of learning in patient communication. The students expressed a desire for early exposure to challenging patient communication during the advanced level of their medical education, with opportunities for learning progression over a longer period. They valued experiential learning and feedback from peers and supervisors to develop their self-knowledge.

The mirrored subthemes of the teachers emphasized the importance of students feeling safe and self-assured for promoting learning the requisite knowledge and skills for patient communication. Patient-centred communication and addressing individual needs were also highlighted. Teachers reported that they lacked information about students' communication skills from one rotation to another and called for information to promote progression *'No, we don't know anything. The students are all suddenly new'* (T).

Clinical agenda and empathic approach

The students reported that in emotionally intense communication situations, it was challenging to simultaneously manage a clinical agenda together with an empathic

approach *'To obtain information from the patient I need to give the patient the best care and at the same time convey empathy'* (S). They expressed difficulty in balancing these two aspects because of the nature of the situation. Additionally, the students emphasized the importance of having a base in medical knowledge to enhance their empathic communication in challenging patient communication. The mirrored teacher subthemes similarly highlighted the role of medical knowledge in students' confidence to manage the challenging patient communication.

Exploring communicative tools in a non-graded situation

Students' self-knowledge and autonomy was supported by the non-graded setting of the simulated activities. This supported the individual exploration and development of different communicative strategies, which could be used during challenging patient communication.

The mirrored subthemes of the teachers supported the students' perspectives, in that the student had to have a sense of basic safety prior to encountering actual challenging patient communication situations. Teachers also reported that increasing the number of simulated activities could support participants' ability to handle challenging patient communication.

Adjacent teaching influences the learning in the simulation

The relation between the SP activity and the adjacent learning activities influenced students' learning to handle challenging patient communication. The bridging between different learning activities was perceived insufficient, which did not promote learning *'The teachers did not refer to the simulation, I don't think they know that we had exercises like that. It is not clear if they know about the simulation'* (S). When aspects of learning to handle challenging patient communication were included in the teaching of medical knowledge it was perceived beneficial for learning, bridging the perceived gap between medical knowledge and communicative skills. Another suggested way to bridge the SP activity to other learning activities was to include aspects from other rotations and medical specialties in a single simulated case, thus covering other areas of knowledge and skills.

The mirrored subthemes of the teachers supported the student theme on expanding the simulated case to cover a broader perspective of medical knowledge and skills. Our results indicate a variation among the teachers in the way they included learning activities on communication skills in learning activities on medical knowledge.

Many actual patient consultations promote learning

The students reported a desire to encounter actual patients to better learn to handle challenging situations. The actual patient encounters were described as profitable for learning, especially in combination with the SP activities. It was described as profitable if the simulated cases aligned with actual patient cases.

The teachers reported that recruiting actual patients for learning to handle challenging patient communication was difficult to organize because of patient vulnerability. Furthermore, it was difficult to guarantee that all students would be able to conduct a challenging patient communication because of the restricted number of patients encounters including challenging communication. However, a mirrored subtheme from the teachers was the possibility to recruit patients in a vulnerable but uncomplicated state from a medical point of view. This was suggested to make it easier for the student to convey empathy in the encounter.

General discussion

The result of this thesis highlights the perceived value of using SPs to learn managing challenging patient communication and support the development of a professional physician identity among medical students. However, to augment the students' perception of learning, these activities can be better integrated into the curriculum. A perceived gap between learning medical knowledge and learning communicative skills, is described to hamper the perception of learning of the latter. To increase the learning value of an SP activity on challenging patient communication the content of the simulated case can involve non-psychiatric aspects of the curriculum, e.g. the acute crisis can emanate from a gynaecological problem that the students must take in account.

Identity formation: empathy and medical knowledge

Professional identity formation, as put forward by Cruess et al. (2014), describes how a medical student internalizes in stages different aspects of being a professional physician through the development of a professional self. They should develop the ability to act and think in line with what is required of a physician profession. Knowing oneself can be a part of the professional identity formation (Cruess et al., 2014). In this thesis, students described self-knowledge as the ability to anticipate and manage their reactions in professional settings. They also noted that knowing oneself as a communicative partner is vital for the management of challenging patient communication.

A physician's professional identity is developed through activities relating to other persons (Monrouxe, 2010). The process of managing challenging patient communication is vital to developing a professional identity, as it represents the intersection of communicating medical knowledge and empathy. Challenging patient communication puts students' communication skills to the test. Toivonen et al. (2017) describes that students can feel emotionally detached during learning activities related to challenging patient communication, which may be to preserve themselves from distress; their empathic communication might subsequently decline over time. Toivonen et al. (2017) implies the students are deliberately staying focused on medical knowledge, detaching themselves from their emotions, to be a good physician in the communication situation. We found slightly divergent

results. In line with Isaksson et al. (2022), students perceived that the often surprising and emotionally overwhelming nature of the challenging communication in the simulated scenario was meaningful for their learning. The simulation pushed them in a direction where they did not have full control but still felt safe. They had to look for unplanned communicative solutions in themselves, which helped to increase their self-knowledge. They reflected on those moments as valuable for their professional identity formation, helping them to see their dual roles a private comforting person and a professional physician.

Being a physician means being able to communicate medical knowledge and convey empathy, both cognitive and affective, in a consultation (Rieffestahl et al., 2021). Brodahl et al. (2021) states that the students in challenging patient communication tend to communicate medical knowledge instead of conveying empathy, which is in line with Riffestahl et al. (2021) and Toivonen et al. (2017). Both Toivonen and Brodahl discuss along the same lines as there being less emphasis in students on empathic communication in learning activities on managing challenging patient communication. In this thesis, however, students reported that having thorough knowledge on medical aspects was supportive of the perception of using empathic communication. This result suggests that having basic medical knowledge is perceived as a prerequisite for the perception of applying empathic communication.

Learning with simulated patients

Collaborative creation of learning

SP activities are a valuable way of learning different aspects of communication, including balancing communicating medical knowledge and empathy (Dale MacLaine et al., 2021; Vermylen et al., 2020; Williams & Song, 2016). In an SP scenario, the learning is mutually created by the active student and SP during a scenario (Lovink et al., 2021). The flexible nature of the learning activity requires the SP to adapt their portrayal of the patient to best support learning. In the SP activities explored in this thesis, SPs were free to react based on the learning outcomes and the scripted character as described by Pascucci et al. (2014). This is perceived to support the sense of a mutual creation of a learning space, where the SP and student are dependent on each other to proceed with the simulated encounter. As articulated by Groot et al. (2020), the communicative challenge in an SP activity may be of high difficulty – on the edge of the zone of proximal development, where learning still occurs. This was supported by the theme in ‘Identity formation’ where the students reported that their learning was supported by them being surprised by how challenging the simulation was.

Important for learning is to have a 'more knowledgeable other', preferably a peer, in the zone of proximal development (Vygotsky & Cole, 1978). This was reflected in the theme 'Collaborative learning'. In this case, the SP took the role of a 'more knowledgeable other' because the SP and student were working on the same problem but from different points of view. The zone of proximal development was created as a physical space, 'a learning space', between the SP and student where the inputs of the two parties linked. According to Groot et al. (2020), simulations of challenging patient communication can be stressful for students. Our results imply that the SP, in their role of the more knowledgeable other, can reduce student stress as well as increase learning.

The theme 'Exploring communicative tools in a non-graded situation' suggested that learning was supported by not grading the SP activity. This is in line with Bearman et al. (2019), who notes that the perception of doing wrong can be a key factor for learning. Muckler and Thomas (2019) notes that apprehension of being assessed can influence the suspension of disbelief and the ability to sign the immaterial fiction contract. The non-graded learning situation was perceived by both students and teachers to promote exploration of communicative strategies without fear of failure. It helped expand students' communicative repertoire and allowed them to actively experiment (Kolb, 1984) in safe conditions.

The SP's responsibility is to, in an authentic way, meet the student on their level; in contrast, it is the student's responsibility to monitor their own suspension of disbelief. The suspension of disbelief can be promoted by proper preparation (Muckler & Thomas, 2019). Our results show that teachers had a crucial role in supporting the suspension of disbelief in students by preparing the students of the framing and outcomes of the simulation. In other words, their preparation was crucial for the students in 'signing' the immaterial fiction contract. The suspension of disbelief in students was also promoted by a sense of uniqueness created by teachers preparing the students for the SP activity.

Experiential learning in cycles

An SP activity fits well in the theory of experiential learning (Kolb, 1984), enabling different levels of reflection in the experiential learning cycle. It creates a micro cycle during the scenario, whereby students have a concrete experience, engage in reflective observation, abstract those observations into concepts, and then actively experiment with their learning to produce a new concrete experience. This is in line with Lovink et al. (2021) and supported by the theme 'Collaborative learning'. In other words, feedback from the SP (in character) during the scenario can lead to reflection followed by conceptualization and active experimentation. This learning cycle can be short and internalized within the individual student. During the small breaks in the scenario (time out/time in), the student can describe the micro cycle as a concrete experience, beginning a new 'meso' reflection cycle with peers, which in

turn can lead to more active experimentation. In the post simulation reflection, the entire simulated activity with all its breaks and related feedback can be reflected on as a holistic concrete experience, producing an even larger 'macro' reflection cycle that allows for elaborated reflections and abstract conceptualisation. At this point, the student might include elaborated reflections of experiences from other educational activities, such as lectures and work-based learning, to continue their experiential learning. In this way, the experiential learning process can generate ever widening cycles. This is supported in the theme 'Adjacent teaching influences the learning in the simulation' and aligns with the variation theory by Marton and Booth (1997) who pronounce that it is profitable for learning to include the object of learning in varied settings.

Learning context

Place in the curriculum

Patient communication is a core skill that is present throughout the medical curriculum investigated in this thesis (Lunds Universitet, n.d.). Bachmann et al. (2022) argues that communication skills training should be implemented recurrently, being a regular part of learning medical knowledge and clinical skills. The students in our studies viewed learning of managing challenging communication in a similar way. Although, students' perception of challenging patient communication might change with increasing experience (Hinchey & Jackson, 2011). In other words, a patient encounter can be labelled as challenging early on in the medical education programme, but less challenging later on.

Our studies show that students and teachers perceived it useful to situate learning activities related to challenging patient communication as investigated in this thesis within the advanced level of the medical education programme. However, they noted it should be gradually introduced. Learning activities specifically addressing challenging patient communication were situated at the end of the 8th semester (Lund University, 2021a), which was perceived as late by students, and were only addressed in learning outcomes in the 9th semester (Lund University, 2022). Accordingly, learning to handle challenging patient communication takes place over a rather short period, something that students also commented on. Marton and Booth (1997) argues that learning a specific subject should be deliberately distributed across different contexts to optimize progression. This is in line with our results where both teachers and students perceived that the learning activities being isolated to a specific rotation hampered progression.

Patient simulation and adjacent learning activities

The studies in this thesis indicated that SP activities are perceived as valuable learning activities for handling challenging patient communication, but it is perceived not efficiently utilized for progression (as noted in the theme 'Adjacent teaching influences the learning in the simulation'). In line with Moura et al. (2021), our results indicate that SP activities on challenging patient communication should be woven into adjacent learning activities. The results imply that aspects of challenging patient communication can be represented in learning activities other than SP activities and vice versa, i.e., relevant communicative aspects from adjacent rotations, can be included in an SP scenario. Distributed content from learning activities is perceived to enhance the progression in learning to manage challenging patient communication.

Other studies show that medical students experience better learning when communicating with actual patients (Burke et al., 2023). In one of our studies, the students stated that communicating with actual patients supported their learning to manage challenging patient communication. They wanted to communicate with actual patients to get concrete experiences, which in turn would help them in developing communication strategies. This is in line with the disadvantages of learning through SP activities where the power balance is skewed as compared to actual patients (Hanna & Fins, 2006) and the students may have a sense of performing (Yardley et al., 2013). An additional finding in this thesis, in line with Baessler et al. (2019), is that most of the learning activities on challenging patient communication during the explored semester took place in the psychiatric rotation. We also noted that perceptions of learning activities to manage challenging patient communication differed among teachers, particularly regarding the appropriateness in communicating with actual patients, number of activities, etc. According to Marton and Booth's (1997) theory on variation in learning, it might be profitable to explore the possibilities of including learning activities on challenging patient communication in domains other than psychiatry and in more diverse situations.

Conclusions and educational implications

This thesis implies that SP activities are experienced as a useful tool to learn how to handle challenging patient communication. During challenging patient communication, self-knowledge is perceived as valuable. An implication in this thesis is that it is vital for an SP scenario to be flexible, allowing the SP to take the part of a more knowledgeable other, to support the students in developing their professional identity and self-knowledge in the zone of proximal development. The high emotional load in the scenario, but still within a safe simulated setting, can encourage the students to explore different communicative strategies and their professional identity. The teachers' future-oriented perspective on building up students' professional identity complemented the more present-focused approach by students and SPs. The teachers also made a vital contribution to the scenario through their preparatory measures, which supported the suspension of disbelief in students. Students indicated that the connectedness between SP activities and other learning activities could have been clearer to facilitate their perceived learning. The perception of learning might be enhanced if aspects of challenging patient communication are better woven into the learning of medical knowledge. To enhance progression in learning to handle challenging patient communication, progression can be clearer in the curriculum. However, the perception of progression is hampered by teachers not knowing the individual student's communicative competencies when entering a rotation.

The educational implications of the thesis are that the perception of learning is enhanced by student-centred, experiential learning of challenging patient communication in simulated settings. This is also perceived by students to support the development of professional identity. The inclusion of appropriate communication skills in learning activities on medical knowledge could facilitate a sense of connectedness and progression in students and teachers throughout the medical education programme.

Future research

In this thesis, I explored aspects of learning how to handle challenging patient communication using SP activities. An aspect of learning not explored in this thesis was feedback. Feedback has been found to be crucial for learning. It would be beneficial to explore the feedback in SP activities from different perspectives, including students, SPs, teachers, and the observing peers. It would also be valuable to compare different perspectives on learning across the different feedback turns of the same SP activity. It would be interesting to use the same research design as in Study I, but with an emphasis on feedback.

A surprising additional finding was the different teachers' approach to teaching how to handle challenging patient communication. It would be interesting to explore if and how differences in education, experiences, and specialty among teachers on different rotations influence the learning of handling challenging patient communication.

For future research, it would be interesting to investigate if learning, both perceived and measured, differs between groups of students who do and do not have learning related to challenging patient communication integrated with learning of medical knowledge. An intervention design could be used to compare these groups.

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STEN ERICI is an educational developer with a background as an actor. He has a special interest in simulated patient methodology. The focus in this licentiate thesis is the use of simulated patient when learning of handling challenging patient communication in medical education. The thesis explores different aspects of the perception of learning using simulated patients and the relation to other learning activities.

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