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Nothing about me without me: A scoping review of how illness experiences inform Simulated Participants’ encounters in health profession education

Ms Linda Ní Chianáin
Centre for Medical Education
Queen’s University Belfast
Belfast
Northern Ireland
lnichianain01@qub.ac.uk
https://orcid.org/0000-0001-7677-4887

Mr Richard Fallis, Subject Librarian for Medicine, Dentistry & Biomedical Sciences, Medical Library, Queen’s University Belfast, Belfast, Northern Ireland. https://orcid.org/0000-0003-4089-7994

Dr Jenny Johnston, Centre for Medical Education, Queen’s University Belfast, Belfast, Northern Ireland. https://orcid.org/0000-0002-3999-8774

Dr Nancy McNaughton, The Wilson Centre for Research in Education, University of Toronto, and University Health Network, Toronto, Canada. https://orcid.org/0000-0001-9557-5509

Professor Gerard J Gormley, Centre for Medical Education, Queen’s University Belfast, Belfast, Northern Ireland. https://orcid.org/0000-0002-1701-7920

3,307
ABSTRACT

Background
Person-centred simulation in health professions education (HPE) requires involvement of the person with illness experience. We investigated how real illness experiences inform simulated participants’ (SP) portrayals in simulation education, using a scoping review to map literature.

Methods
Arksey and O’Malley’s framework was used to search, select, chart, and analyse data with the assistance of personal and public involvement (PPI). Medline, EMBASE, CINAHL, Scopus and Web of Science databases were searched. A final consultation exercise was conducted using results.

Results
37 articles were within scope. Reporting and training of SPs is inconsistent. SPs were actors, volunteers, or the person with the illness experience. Real illness experience was commonly drawn on in communication interactions. People with illness experience could be directly involved in various ways, such as through conversation with an SP, or indirectly, such as a recording of heart sounds. The impact on the learner was rarely considered.

Conclusion
Authentic illness experiences help create meaningful person-centred simulation education. Patients and SPs may both require support when sharing or portraying illness experience. Patients’ voices profoundly enrich the educational contributions made by SPs.

Keywords
• Simulated based education, simulated participants, illness experiences
BACKGROUND

The role of simulated participants: expanding and professionalising

By integrating clinical scenarios into simulation-based education (SBE), learners can develop professional skills and behaviours in a safe and guided fashion.¹ The choice of modality in SBE is largely dependent on the clinical skills being developed. Manikin-based learning is well established in SBE, offering learning opportunities in rarely encountered or invasive skills, such as defibrillation or airway management.² Despite advances in technology and more life-like manikins, they often fall short of reproducing realistic human-human simulation experiences.³ Increasingly, simulated patient-participants or commonly simulated participants (SP) have come to fulfil this need.

Historically, Barrows and colleagues established the concept of ‘proxy’ patients in the 1960’s.⁴ The idea was to protect ‘real-life’ patients from the harm of multiple examinations. Since then, SP roles have expanded, diversified and become professionalised in education.⁵ SPs facilitate real-person, learning of a range of skills, from physical examination and communication to more complex role-play.⁶ SPs offer their human presence to simulation, representing illness experiences of patients, carers, families and others integral to patient care.⁷ ⁸ However, the input of actual patients with lived illness experiences is often lacking.⁹ Overseen by clinicians, SP portrayals may focus more on narrow biological dimensions of illness (e.g. range of movement in a knee examination) rather than emotional, psychological, and social dimensions.¹⁰ The person with illness experience becomes a ‘phantom’ within secondary and tertiary depictions of their story¹¹ seen as simulacra¹². In this way, SBE may unintentionally reproduce Foucault’s clinical gaze,¹³ prioritising objective findings over subjective experience and co-construction. SBE must seek to move beyond the paternalistic assumption that clinicians know best.¹⁴

‘Nothing about me, without me’¹⁵: real patient experiences in SP roles

Greater integration of patients’ illness experiences in SP training and portrayals has been suggested. Nestel et al. ¹⁶ and Plaksin et al. ¹⁷ support the idea that real patients should contribute to role development and training, while Nestel and Bearman call for greater inclusion of real patients in scenario development.¹⁸ The medical regulator in the UK, the
General Medical Council (GMC), has explicitly demanded evidence of OSCE stations’ authenticity from a patient’s perspective, and evidence of how SPs are supported in their roles. There has been little consistency in how best to integrate real illnesses experiences. Professional standards from the Association of Standard Patient Educators (ASPE), International Nursing Association for Clinical Simulation (INACSL), and Association for Simulated Practice in Healthcare (ASPiH) do not report on involving patients in the consultation, design and implementation process.

From the position that SPs represent individuals with real lived illness experiences, we conducted a scoping review with the research question; how are real-life illness experiences used within SPs’ portrayals in simulation education?

METHODOLOGY

Research team
The research team comprised included an academic nurse (LnC), clinical simulation academic (GJG), critical clinical researcher (JLJ), health profession educationalist (NMcN) and a health specialist librarian (RF). The research team continually engaged reflexively with each other.

In keeping with best practice, we recruited two advisors for personal and public involvement (PPI): a patient with illness experience and an SP.

Scoping review methodology framework
We utilised frameworks from Levac and Arksey and O’Malley, completing steps outlined in the PRISMA-ScR checklist. We performed all six stages (i.e. Stage 1: Identifying the research question, Stage 2: Identifying relevant articles, Stage 3: Article selection, Stage 4: Charting the data, Stage 5: Collating, summarising and reporting the results and Stage 6: optional Consultation exercise. In line with scoping review methodology, we did not formally appraise the quality of articles included.
Stage 1: Identifying the research question

We utilised the ‘Population, Situation’ tool,\textsuperscript{25} to help develop our research objectives. The ‘Population’ was SPs, and the ‘Situation’ was how ‘real illness experiences were represented by SPs in HPE’. Our scoping review set out to address the following research objectives

1) How are the patient’s illness experiences gathered to inform SPs roles in SBE?
2) How do SPs represent these illness experiences in SBE?
3) What impact, if any, do real experiences of illness have on HPE learners?

Stage 2: Identifying relevant articles

The team developed and refined a search strategy in consultation with a subject librarian (RF) who had expertise in health-related databases (Table 1). In May 2019 five databases were searched: MEDLINE, EMBASE, Scopus, Web of Science and CINAHL with our full search strategy and terms.

\begin{table}[h]
\centering
\begin{tabular}{|l|}
\hline
\textbf{TOPIC:} ((patient* or client* or "service user*" or famil* or parent* or child* or carer* or caregiver* or mother* or father* or guardian* or person* or public* or individual*) near/5 (involv* or engag* or participa* or role* or real* or *centre* or *center* or experienc* or view* or opinion* or feeling* or includ* or inclus* or *focus*)) \\
\hline
\textbf{TOPIC:} ((health* or medic* or nurs* or "social care*" or "social work*" or “allied health*” or pharmac* or physio* or "physical therap*" or “occupational health*" or “occupational therap*” or dent* or midwi* or psych* or podiatr* or diet* or “speech and language therap*”) near/5 educat*) \\
\hline
\textbf{TOPIC=}=(simulat* OR "standardi?ed patient*" OR "simulated participant*" OR "role$play*" OR "hybrid simulation*" OR "patient focused simulat*" OR actor* OR "programmed patient*) \\
\hline
\end{tabular}
\caption{Search terms used, adapted for use with Web of Science.}
\end{table}

We included a broad range of articles as legitimate sources of knowledge, including primary research (both quantitative and qualitative) and other articles including commentaries and editorials. To obtain knowledge that was relevant to our current practice, our searches were limited to the previous ten years and English language-only articles. Unpublished literature was excluded. Our search resulted in an initial sample of 5437 citations which were exported to Covidence Systematic Review Software (Melbourne, Australia) for review.
Stage 3: Article selection

From the initial list of 5,437 citations, 2,489 duplicates were removed, leaving 2,948 articles. Two researchers (LnC and GJG) independently screened all 2,948 abstracts, rejecting 2,854 articles, not in scope. Conflicts between researchers in screening abstracts were discussed until consensus was reached.

Inclusion criteria were refined iteratively throughout. We included articles that 1) pertained to SPs, 2) context of HPE 3) utilised illness experiences from real patients. Articles were excluded if they did not meet inclusion criteria. Of the remaining 94 articles, LnC and GJG read the full-text articles and excluded 76. Of the 18 articles identified, researchers found that patients and their illness experiences could be harnessed in various ways that were not initially considered by the research team. This led to a second review of titles and abstracts which identified a further 9 articles. We conducted a hand search of the reference lists of our selected articles, which identified a further 4 articles. An updated search in May 2020 identified a further 6 articles. A total of 37 articles met the inclusion criteria.

Figure 1. PRISMA flowchart of the screening and selection process

Stage 4: Charting the data

After reading the selected articles, LnC and GJG iteratively devised a data extraction template using Microsoft Excel (Microsoft, Redmond, USA) (See appendix 1). Key demographic details were extracted, including author(s), year of publication, journal, article location, methodological approach, and relevant health discipline(s). Precisely, data relating to 1) who is representing the real illness experiences (i.e., which type of individual was simulating an actual patient’s experiences) 2) training of simulated participants 3) the nature and context of the SP role portrayal and 4) what aspects of real illness experiences were utilised by SPs in their role 5) the potential impact, or not, on the learner. LnC charted the selected articles’ data, which were then reviewed by GJG. Discrepancies were resolved through discussion with a third member of the research team (NMcN). Our PPI group (GH, RY) reviewed the template. Data extracted was checked for accuracy (LnC, GJG, NMcN).
**Stage 5 Collating, summarising, and reporting the results**

Quantitative and qualitative analyses were used to generate a ‘map’ of the included literature. Fundamental characteristics of the included articles’ distribution and nature was performed. Qualitative data was analysed thematically.

**Stage 6 Consultation exercise**

We completed this optional step to share results with stakeholders, confirm relevancy and establish future research plans (Levac et al., 2010). Stakeholders were invited to participate in an online survey. The survey was tested and modified based on our PPI advisor’s feedback. Twelve stakeholders participated: students (n=4), SPs (n=2) and academics (n=6). The survey included three open-ended questions: *What do you think the research team might have found? What are your thoughts on the findings from our scoping review? What do you think we should do next?* and two embedded videos, one explained the purpose of the scoping review and the second video shared findings. Participants were asked for their initial thoughts on the research before sharing the second video. Opinions collected by the team verified that participants (n=8) confirm or agree with findings as they were ‘conducive’ or ‘aligning with their own experience’ and that they were ‘unsurprised’. The remaining (n=4) found the findings interesting or had predicted them. One participant did not provide an opinion on presented findings but provided suggestions towards future work.

**Personal and public involvement (PPI) in this review**

PPI advisors commented on the review question, search terms, reviewed an included article, data extract table, participant documentation and assisted with developing the consultation exercise. They were not involved in screening abstracts. They helped with the development and testing of our consultation exercise survey.
FINDINGS

Article characteristics
All 37 articles were published since 2008. They comprised quantitative [13], qualitative [10] and pilot studies [10], a review [1], a report [1], a program review [1], and one was undefined [1]. One was a randomised control trial, and one used grounded theory. The pilot studies ranged from mixed methods to phenomenology, to pre-post testing, and the review was a meta-narrative review. The geographical spread of the 37 selected articles was as follows: North America [21] Europe [8], Australia [4], Asia (3) and Africa (1). Twenty of the publications were in general healthcare-related education journals, 14 of these were specific to medical education, 4 to nurse education, 1 to combined health profession education and 1 to radiology education. Most publications were from the discipline of Medicine (25), followed by Nursing (5), Inter-professional (4), Pharmacy (1), Radiology (1), Speech and Language Therapy (1).

Who is representing the real illness experiences?
There was inconsistency in terminology: for example, articles from North America and Africa (n=18) often used the term ‘standardised patients’ but in other countries including Europe, Australian and Asia, used the term ‘simulated patients’ (n=9). Some articles referred to ‘actors’ or ‘patients’ (n=7). A wide range of individuals were considered as SPs: individual ‘actors’, 26-30 members of the public who were not actors, 31-34 students35 36, a person with the illness experiences portraying themselves29 37 or acting out a scenario similar in nature 38-47 although not all studies defined SPs.48-50 Educational SP roles included in OSCEs,28 30 44 51 examining,27 29 41 assessing,34 49 50 teaching,31 37 42 43 46 47 52 53 training,32 35 36 38 45 54-57 or learning.26 40 Remaining articles focused on SPs or patients performance,58 experience48 59 and involvement16 33 60 61 in simulation.

Training of simulated participants
There was ambiguity about what training, if any, was provided for SPs. Several articles reported that SPs were ‘trained’ without providing specific details.27 30 41 50 61 Four articles did not report any training.29 38 53 60 Three articles described ‘extensive’ training31 32 43 without
providing any detail. Articles that did provide detail about SP training included information about content and format. Communication training (6hrs) focused on the essential components of SP roles and delivering feedback to students. Specific training (3hrs) was undertaken one week prior with a clinical specialist on the plan and expectation of the simulation activity. SPs receiving written information about all three cases, engaging in a dialogue of key features of each child’s presentation, and viewing footage to understand the impact of his/her speech disorder details of the specific illness that SPs were trained for are provided in a subsequent section. There was wide variation in the time taken to provide SP training – ranging from 3 hours to 40 hours or more than 200 hours of SP interactions, and less specifically from 1 training session to 8 weeks of training, to 5 times per year. Finally, one article highlighted the importance of creating a supportive environment, noting the potential vulnerability of SPs who may have had real illness experiences and not wanting to re-traumatise them.

The nature and context of role portrayal

Broadly, roles fell into three categories: communication interactions with learners, physical examination encounters, or a combination. In all these interactions, the SPs’ role had been informed, to various degrees, by real illness experiences.

Often SPs were involved in a more communicative / consultation type SBE activity. These interactions focused on challenging conversations including delivering bad news, providing emotional support to HIV/AIDS individuals or discussing lifestyle behaviours relating to weight loss. Several studies focused on learners’ attitudes in communicating with individuals with special needs, including persons with an intellectual disability, verbal or visible disabilities and cerebral palsy. Five studies focused on mental illness experiences such as assessing suicidal risk, those at risk of suicide, alcohol detoxification and emotional distress following self-harm and overdose.

In a smaller number of articles, the focus was on procedural skills. An actual representation of signs of illness was integrated into the SP role: for example, a recording of actual patient heart sounds or a transfer tattoo of a malignant melanoma.
What aspects of real illness experiences did SPs utilise?

Illness experiences were directly shared when SPs met or observed real patients, or more indirectly gathered by illness accounts. For example, SP simulations were validated by focus groups of people living with HIV (PWH). In one case, patients and family worked with the simulation team during training, including observation and feedback. In another article, SPs directly observed real patients, such as a patient going through alcohol detoxification.

In other articles, illness experiences were achieved by diverse and creative methods. Three articles described video narratives of people and families affected by intellectual and developmental disabilities. In other examples, SPs observed video footage of conversational interactions with individuals with aphasia, and images of a child with a cleft palate. Previous literature about patients’ preferences of how best to break bad news were also used.

Five articles utilised a direct representation of an individual’s illness for SPs roles in SBE. These focused on directly harnessing objective features of illness for use in physical examination scenarios. One article involved one person with a palpable breast mass facilitating a clinical breast examination for students; this has significant ethical implications. A patient diagnosed with malignant melanoma allowed an image of their cancer to be used to develop a realistic transfer tattoo of a melanoma. This temporary tattoo was then applied to an SP body to enact the role of a patient with melanoma. In another article, an actual patient’s heart and respiratory sounds were electronically captured and reproduced audibly via a digital stethoscope when applied to an SPs chest.

Finally, several articles described how individuals with illnesses had decided to become SPs, drawing on their illness in their simulated role (although not portraying themselves). For example, individuals with HIV were scripted to portray a patient with HIV. More often, such scripts were developed solely by healthcare clinicians and educators rather than in partnership with patients.
Only two articles highlighted the need to provide support to real patients to reduce the risk of re-traumatising them. This risk appeared to be a factor in producing video footage rather than face-face contact with SPs. However, in two studies, individuals with lived experience of illness gained benefit from developing the SP role. Psychological safety or support of SPs was not mentioned in any articles in their portrayal of individuals with an illness.

The potential impact, or not, on the learners

The educational impact of incorporating real illness experience was referred to positively. For example, learners found this improved the realism of the scenario and contributed to the development of empathy and respect for dignity. Learners demonstrated an improved comfort with addressing difficult topics with patients. Students valued interacting with patients in their SP role but did not necessarily see a place for patient involvement in curriculum design.

Overall, SPs’ involvement with a lived illness experience significantly improved and helped sustain learners’ confidence. In one study, medical students, believed that the SPs were all real patients. Learners disclosed positive changes in affect and understanding, and an improvement in knowledge and skill levels when interacting with patients who were participating as SPs. Learners described the experience of interacting with SPs who had been informed by real illness experiences as eye-opening, powerful, and beneficial to their education and future practice. In contrast, learners reported anxiety and fear when trying to behave in a way that was appropriate for the person with the lived experience and the lecturer.

DISCUSSION

Traditionally, SPs roles have been informed by the clinical gaze. Nestel, et al. urge us to think seriously and artistically of ways to include the person with the experience. An SP can be any person who is willing to take on the responsibility to portray an illness experience, irrespective of having had the illness experience. Central to their role is the need to represent authentic clinical encounters to benefit health professional development and training. It is
recognised that such verisimilitude can create anxiety among learners, but the advantage of realism in simulation is to help learners develop confidence which is transferrable to actual life contexts.36 40 41 44 51 52

There remain inconsistencies in the training of SPs and writing of patient roles. Many clinicians continue to excogitate patient roles without their involvement, but yet describe their simulations as authentic. Such claims are misleading: it is suggested that authenticity is not achievable without real patient involvement.33 There is growing respect for the contribution of patients’ illness experience to directly shaping practice.61 It is acknowledged that patient involvement is time-consuming.16 It all too easy to exclude patients from contributing by suggesting that they may be reluctant or are too sick to contribute.9

We advocate for developing a more patient-focused simulation methodology; a ‘complementarity model’ that values all stakeholders’ involvement in role development.9 16 51 We invite the simulation community to join us in advocating for transparently patient-focused simulation.

Recommendations
The impact of illness experiences on learners, SPs and patients’ needs to be further researched. Guidance on how best to conduct PPI when designing simulations would be helpful. Notably, there is a need to acknowledge a person’s psychological safety with lived experience when doing so. A further step will be to influence policy development via simulation societies (ASPE, INASCL, ASPiH) by changing current standards of practice to co-create roles with all stakeholder’s involvement.

Limitations
Some relevant sources may have been omitted. The involvement of RF and development of a robust search strategy was designed to minimise this risk. Articles were limited to English-language publications since 2008. No formal synthesis or quality appraisal was undertaken, reflecting the accepted methodology and intended focus on mapping.
The authors recognised that PPI advisors could have had a more active role in the screening and data extraction process but felt this would warrant monies, so were recruited in a voluntary capacity with no obligations other than to provide comments at each stage.

Clinical educators’ knowledge and experience are valued as are those with the illness experience. Creating a holistic perspective embraces patient centre education by involving all stakeholders. While such involvement is time-consuming it enables educators to engage with patients, empowers SPs and enhances the learners’ experience.

CONCLUSIONS
Illness experiences are complex, personal, and multi-dimensional, but the norm in health professions education has been to focus on the biological representation of illness via the clinical gaze. There are growing obligations for a holistic approach that engages with the patient’s illness experience to inform SP roles. Methods to harness illness experience have been identified in this review. We have provided some practical examples to support the creation of meaningful person-centred simulations based on illness experiences. Patients must be suitably supported in sharing experiences. SP portrayals are increasingly complex and sophisticated, potentially also requiring additional support. By adopting an inclusive stance and inviting personal and public involvement, researchers can begin to narrow the gap in creating authentic patient-centred simulation experiences for healthcare learners.

ACKNOWLEDGEMENTS
A special acknowledgement to our personal and public involvement (PPI) advisors Ms Ruth Yeo (RY) and Mr Gary Hunt (GH) for their invaluable contribution from a simulated participant and patient perspective.

CONTRIBUTIONS
All authors contributed to conception and design. LnC, GG, NMcN, and JLJ contributed to the draft of the initial manuscript. RF assisted with search terms and conducted the searches in the five databases. All authors reviewed and approved the final manuscript.
COMPETING INTERESTS
The authors declare no conflict of interests

FUNDING SOURCE
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RESEARCH ETHICS
This review received ethical approval by the Research Ethics Committee (School of Medical, Dentistry and Biomedical Sciences, QUB) for the collaboration stage of scoping review. Written informed consent was obtained from participants.
REFERENCES


Figure 1. PRISMA flowchart of the screening and selection process

Appendix 1. Included Articles
Studies Imported for Screening (n = 5437)

Screening Included Eligibility Identification

Duplicates Removed (n = 2489)

Records after duplicates removed (n = 2948)

Irrelevant studies (n = 2859)

Full-text articles assessed for eligibility (n = 94)

57 No person involvement
11 No SPs
8 No SP & No Person Involvement

Studies included (n = 18)

Records after duplicates & included studies (n = 2854)

Irrelevant studies (n = 2845)

Full-text articles excluded (n = 76)

Studies included (n = 9)

Records after duplicates & excluded studies (n = 617)

Irrelevant studies (n = 613)

Updated Review 1st May 2020

Studies Imported for Screening (n = 942)

Records after duplicates (n = 422)

Full-text articles assessed for eligibility (n = 16)

Studies included (n = 6)

Initial Review 1st May 2019

Studies Imported for Screening (n = 627)

Records after duplicates & included studies (n = 617)

Irrelevant studies (n = 613)

Updated Review 1st May 2020

Studies Imported for Screening (n = 942)

Records after duplicates (n = 422)

Full-text articles assessed for eligibility (n = 16)

Studies included (n = 6)
### Appendix 1 Included Articles

<table>
<thead>
<tr>
<th>No.</th>
<th>Authors</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
<th>Country</th>
<th>Methodology</th>
<th>Methods</th>
<th>Discipline</th>
<th>Aim/Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Boukouvalas, E.A. El-Den, S. Chen, T.F. Moles, R. Saini, B. Bell, A. O'Reilly, C.L.</td>
<td>Confidence and attitudes of pharmacy students towards suicidal crises: patient simulation using people with a lived experience</td>
<td>Social psychiatry and psychiatric epidemiology</td>
<td>2018</td>
<td>Australia</td>
<td>Quantitative</td>
<td>Validated surveys</td>
<td>Pharmacy</td>
<td>The primary aim of this study was to assess the impact of utilising people with a lived experience of mental illness as simulated patients on final year pharmacy students' attitudes toward and confidence in responding to suicidal ideation, following Mental Health First Aid (Boukouvalas et al.) training.</td>
</tr>
<tr>
<td>2.</td>
<td>Castilano, A. Haller, N. Goliath, C. Lecat, P.</td>
<td>The Ventriloscope (R): `Am I hearing things?'</td>
<td>MEDICAL TEACHER</td>
<td>2009</td>
<td>USA</td>
<td>---</td>
<td>Report</td>
<td>Medicine</td>
<td>The objective of this report is to describe an inexpensive method of broadcasting abnormal auscultatory findings to a relatively normal-appearing stethoscope.</td>
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<td>3.</td>
<td>Coret, A. Boyd, K. Hobbs, K. Zazulak, J. McConnell, M.</td>
<td>Patient Narratives as a Teaching Tool: A Pilot Study of First-Year Medical Students and Patient</td>
<td>TEACHING AND LEARNING IN MEDICINE</td>
<td>2018</td>
<td>Canada</td>
<td>Pilot - Phenomenological &amp; mixed methods</td>
<td>Focus Group, &amp; communication assessment</td>
<td>Medicine</td>
<td>This study aimed to introduce 1st-year medical students to the Intellectual and developmental disabilities (IDD) population using a blended educational approach.</td>
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<td></td>
<td>Educators Affected by Intellectual/Developmental Disabilities</td>
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<td>experience that included video narratives of and direct interactions with people affected by IDD.</td>
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<td>4.</td>
<td>Cosper, P. Kaplow, R. Moss, J.</td>
<td>The Impact of Patient and Family Advisor on Critical Care Nurses' Empathy</td>
<td>The Journal of nursing administration</td>
<td>2018 # USA</td>
<td>Quantitative</td>
<td>Descriptive preintervention / postintervention design Questionnaire</td>
<td>Nursing</td>
<td>The purpose of this study was to determine if a higher level of ICU Nursing Empathy can be achieved as a result of nurses' participation in Patient and Family Advisor (PFA) designed educational offering.</td>
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<tr>
<td>5.</td>
<td>Duggan A. Bradshaw Y.S. Altman W.</td>
<td>* How do I ask about your disability? An Examination of Interpersonal Communication Processes Between Medical Students and Patients with Disabilities.</td>
<td>Journal of health communication</td>
<td>2010 # USA</td>
<td>Qualitative</td>
<td>medical interactions were videotaped and transcribed verbatim</td>
<td>Medicine</td>
<td>This project examines interpersonal communication processes in the ways medical students approach standardised patient educators (SPEs) with a visually apparent disability during medical interviews.</td>
<td></td>
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<tr>
<td>6.</td>
<td>Duggan, A. Bradshaw, YS. Carroll, SE. Rattigan, SH. Altman, W.</td>
<td>* What can I learn from this interaction? A Qualitative analysis of medical student self-reflection</td>
<td>Journal of health communication</td>
<td>2009 USA</td>
<td>Qualitative Analysis</td>
<td>Interview and feedback transcripts</td>
<td>Medicine</td>
<td>Examines medical students' learning about disability in a project using individuals with disabilities as medical educators.</td>
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<td></td>
<td>Felton, A. Holliday, L. Ritchie, D. Langmack, G. Conquer, A.</td>
<td>Simulation: A shared learning experience for child and mental health pre-registration nursing students</td>
<td>Nurse Education in Practice</td>
<td>2013</td>
<td>UK</td>
<td>Pilot</td>
<td>Focus Groups and a Questionnaire</td>
<td>Child Nursing &amp; Mental Health Nursing</td>
<td>An Educational pilot sought to explore the use of simulation to enhance learning for pre-registration students undertaking child or mental health nursing qualification.</td>
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<td></td>
<td>Forsgren, E. Hartelius, L. Saldert, C.</td>
<td>Improving medical students' knowledge and skill in communicating with people with acquired communication disorders</td>
<td>International journal of speech-language pathology</td>
<td>2017</td>
<td>Sweden</td>
<td>Quantitative</td>
<td>Questionnaire</td>
<td>Medicine</td>
<td>To explore the effects of an interactive workshop on medical students' knowledge and skill in communicating with people with acquired communication disorders.</td>
</tr>
<tr>
<td></td>
<td>Fujimori, M. Shirai, Y. Asai, M. Akizuki, N. Katsumata, N. Kubota, K. Uchitomi, Y.</td>
<td>* Development and preliminary evaluation of communication skills training program for oncologists based on patient preferences for</td>
<td>Palliative and Supportive Care</td>
<td>2014</td>
<td>Japan</td>
<td>Quantitative</td>
<td>Pre-post training survey</td>
<td>Medicine</td>
<td>The purposes of this study were to develop a communication skills training (CST) workshop program based on patient preferences and to evaluate preliminary feasibility of the CST program on the objective performances of physicians and the</td>
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<tr>
<td>No.</td>
<td>Authors</td>
<td>Title</td>
<td>Journal/Volume</td>
<td>Year</td>
<td>Country</td>
<td>Design</td>
<td>Data Collection</td>
<td>Methods</td>
<td>Description</td>
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<td>10</td>
<td>Fujimori, M. Shirai, Y. Asai, M. Kubota, K. Katsumata, N. Uchitomi, Y.</td>
<td>* Effect of communication skills training program for oncologists based on patient preferences for communication when receiving bad news: A randomised controlled trial</td>
<td>Journal of Clinical Oncology</td>
<td>2014</td>
<td>Japan</td>
<td>Quantitative Randomized Control Trial</td>
<td>Pre-post Survey</td>
<td>Medicine</td>
<td>This study aimed to identify the effects of a communication skills training (CST) program for oncologists, developed based on patient preferences regarding oncologists' communication.</td>
</tr>
<tr>
<td>11</td>
<td>Hill, AE. Davidson, BJ. Theodoros, DG.</td>
<td>The performance of standardised patients in portraying clinical scenarios in speech-language therapy.</td>
<td>International journal of language &amp; communicatio n disorders</td>
<td>2013</td>
<td>Australia</td>
<td>Quantitative</td>
<td>Videotaped interviews were rated</td>
<td>Speech &amp; Language Therapy</td>
<td>To investigate the accuracy, reproducibility and replicability of standardised patients (SPs) portraying three scenarios, each as a parent of a child presenting with a speech disorder.</td>
</tr>
<tr>
<td>12</td>
<td>Jaworsky, D. Chew, D. Thorne, J. Morin, C. McNaughton, N.</td>
<td>From patient to instructor: Honoring the lived experiences</td>
<td>Medical Teacher</td>
<td>2012</td>
<td>Canada</td>
<td>Pilot</td>
<td>Focus groups</td>
<td>Medicine</td>
<td>Designed a student-initiated pilot study to investigate the role of people living with HIV (PHAs) as patient-</td>
</tr>
<tr>
<td></td>
<td>Authors</td>
<td>Title</td>
<td>Journal/Book/Conference</td>
<td>Year</td>
<td>Country</td>
<td>Methodology</td>
<td>Data Collection</td>
<td>Study Goal</td>
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<td>13.</td>
<td>Kiluk, J.V. Dessureault, S. Quinn, G.</td>
<td>Teaching Medical Students How to Break Bad News with Standardised Patients</td>
<td>Journal of Cancer Education, USA</td>
<td>2012</td>
<td>USA</td>
<td>Quantitative</td>
<td>Pre-post questionnaires</td>
<td>The purpose of this study was to evaluate student perceptions of the methods used in teaching how to break bad news.</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Langley, RGB Tyler, SA. Ornstein, AE. Sutherland, AE. Mosher, LM.</td>
<td>Temporary Tattoos to Simulate Skin Disease: Report and validation of a Novel Teaching Tool</td>
<td>Acad Med, Canada</td>
<td>2009</td>
<td>Canada</td>
<td>Quantitative</td>
<td>Five-point Likert scale.</td>
<td>The authors carried out this study to learn whether a novel educational tool a temporary tattoo, could successfully simulate a malignant melanoma.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Long-Bellil, L.M. Robey, K.L. Graham, C.L. Minihan, P.M. Smeltzer, S.C. Kahn, P.</td>
<td>Teaching Medical Students About Disability: The Use of Standardised Patients</td>
<td>Academic Medicine, USA</td>
<td>2011</td>
<td>USA</td>
<td>----</td>
<td>Program review</td>
<td>The authors discuss several U.S. training programs that involve SPs who have disabilities or SPs who do not have disabilities but who portray patients who do. They also explore the benefits, challenges, and resources necessary for implementing such programs.</td>
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<td></td>
<td>Authors</td>
<td>Title</td>
<td>Journal</td>
<td>Year</td>
<td>Country</td>
<td>Study Design</td>
<td>Methods</td>
<td>Objectives</td>
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<td>16.</td>
<td>Lown, B.A. Sasson, J.P. Hinrichs, P.</td>
<td>Patients as Partners in Radiology Education. An Innovative Approach to Teaching and Assessing Patient-Centered Communication</td>
<td>Academic Radiology</td>
<td>2008</td>
<td>USA</td>
<td>Pilot</td>
<td>Focus Group Questionnaires</td>
<td>Radiologists</td>
<td>Piloted educational strategies and an assessment instrument to teach and evaluate radiologists' communication skills.</td>
</tr>
<tr>
<td>17.</td>
<td>Nestel, D. Cecchini, M. Calandrini, M. Chang, L. Dutta, R. Tierney, T. Brown, R. Kneebone, R.</td>
<td>Real patient involvement in role development: Evaluating patient-focused resources for clinical procedural skills</td>
<td>Medical Teacher</td>
<td>2008</td>
<td>Australia</td>
<td>Qualitative</td>
<td>Interviews Rated the roles</td>
<td>Medicine</td>
<td>To explore a systematic approach to role development that was based on individual patient's experiences.</td>
</tr>
<tr>
<td>18.</td>
<td>Nestel, D. Tierney, T. Kubacki, A.</td>
<td>Creating authentic simulated patient roles: working with volunteers.</td>
<td>Medical education</td>
<td>2008</td>
<td>Australia</td>
<td>----</td>
<td>Participants informed SP role</td>
<td>Medicine</td>
<td>To generate new simulated patient roles quickly and efficiently and ensure a real patient perspective was offered.</td>
</tr>
<tr>
<td>19.</td>
<td>Newcomb, AB. Trickey, AW. Porrey, M. Wright, J. Piscitani, F. Graling, P. Dort, J.</td>
<td>*Talk the Talk: Implementing a Communication Curriculum for Surgical Residents</td>
<td>JOURNAL OF SURGICAL EDUCATION</td>
<td>2017</td>
<td>USA</td>
<td>Quantitative</td>
<td>Assessment tool Questionnaire Checklist</td>
<td>Medicine</td>
<td>Aimed to develop and implement a curriculum incorporating interactive learning principles such as group discussion and simulation-based scenarios to formalise</td>
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<td>ID</td>
<td>Authors</td>
<td>Title</td>
<td>Journal</td>
<td>Year</td>
<td>Country</td>
<td>Study Type</td>
<td>Data Collection Method</td>
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<td>20</td>
<td>Rivera-Segarra, E. Carminelli-Corretjier, P. Varas-Díaz, N. Neilands, T.B. Yang, L.H. Bernal, G.</td>
<td>HIV and Depression: Examining Medical Students Clinical Skills</td>
<td>Frontiers in Psychiatry</td>
<td>2020</td>
<td>USA</td>
<td>Quantitative</td>
<td>Demographic Questionnaires &amp; assessed using a three-point scale</td>
<td>Medicine</td>
<td>To describe medical students’ clinical skills for dealing with major depression symptomatology and suicidal ideation among people living with HIV (PWH) in Puerto Rico</td>
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<tr>
<td>21</td>
<td>Rowland, P. Anderson, M. Kumagai, AK. McMillan, S. Sandhu, VK. Langlois, S.</td>
<td>Patient involvement in health professionals' education: a meta-narrative review.</td>
<td>Advances in health sciences education: theory and practice</td>
<td>2019</td>
<td>Canada</td>
<td>Review</td>
<td>Meta-narrative Review</td>
<td>Health Professions Education</td>
<td>To synthesise how questions of patient involvement in health professions education (HPE) have been considered across various research traditions and over time.</td>
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<tr>
<td>22</td>
<td>Sagalowsky, S.T. Kester, K. Woodward, H. Bailey, B. Catallozzi, M.</td>
<td>Lessons learnt from piloting paediatric patient-focused and family-focused simulation methodology in a clerkship objective structured</td>
<td>BMJ Simulation and Technology Enhanced Learning</td>
<td>2019</td>
<td>USA</td>
<td>Pilot</td>
<td>Observation and feedback on the OSCE</td>
<td>Medicine</td>
<td>To modify and pilot patient-focused simulation (PFS) methodology in the development and implementation of a formative OSCE.</td>
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<td></td>
<td>Name(s)</td>
<td>Paper Title and Details</td>
<td>Journal</td>
<td>Year</td>
<td>Type</td>
<td>Evaluation</td>
<td>Program</td>
<td>Description</td>
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<td>23.</td>
<td>Salam, T. Collins, M. Baker, A.-M.</td>
<td>All the world’s a stage: Integrating theater and medicine for interprofessional team building in physician and nurse residency programs</td>
<td>Ochsner Journal</td>
<td>2012</td>
<td>Pilot</td>
<td>Pre-post rater</td>
<td>Nursing &amp; Medicine</td>
<td>Described the steps behind the development, execution, and evaluation of an educational program designed to actively engage resident physicians and novice nurses to work together to care for a simulated inpatient in crisis.</td>
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<tr>
<td>25.</td>
<td>Smeltzer, S.C. Mariani, B. Gunberg Ross, J. de Mange, E.P. Meakim, C.H. Bruderle, E. Nthenge, S.</td>
<td>Persons with Disability: Their Experiences as Standardised Patients in an Undergraduate Nursing Program</td>
<td>Nursing education perspectives</td>
<td>2015</td>
<td>Qualitative</td>
<td>Focus group interviews</td>
<td>Nursing</td>
<td>The purpose of this study was to increase our understanding of the experiences of those serving as standardised patients with disabilities (SPWDs) and to identify strategies to improve the experience for them and for nursing students.</td>
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<td>No.</td>
<td>Author(s)</td>
<td>Title</td>
<td>Journal</td>
<td>Year</td>
<td>Country</td>
<td>Methodology</td>
<td>Type of Study</td>
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<tr>
<td>26.</td>
<td>Stacey, G. Pearson, M.</td>
<td>* Exploring the influence of feedback given by people with lived experience of mental distress on learning for preregistration mental health students</td>
<td>Journal of Psychiatric &amp; Mental Health Nursing (John Wiley &amp; Sons, Inc.)</td>
<td>2018</td>
<td>UK</td>
<td>Qualitative Analysis</td>
<td>Written Reflections</td>
<td>Nursing</td>
<td>To gain a greater understanding of the influence of feedback given by people with lived experience, in the role of formative assessor, on student learning.</td>
</tr>
<tr>
<td>27.</td>
<td>Stacey, G. Pearson, M.</td>
<td>* An inductive content analysis of formative feedback given by lived experience assessors in preregistration mental health nurse education</td>
<td>Journal of Mental Health Training, Education and Practice</td>
<td>2019</td>
<td>China</td>
<td>Qualitative</td>
<td>Educational evaluation</td>
<td>Nurse</td>
<td>To compare the nature of feedback provided to students by people who have both worked in and used mental health services</td>
</tr>
<tr>
<td>28.</td>
<td>Stanley, C. Lindsay, S. Parker, K. Kawamura, A. Zubairi, MS.</td>
<td>Value of Collaboration with Standardised Patients and Patient Facilitators in Enhancing Reflection During the Process of</td>
<td>JOURNAL OF CONTINUING EDUCATION IN THE HEALTH PROFESSIONS</td>
<td>2018</td>
<td>Canada</td>
<td>Qualitative - grounded theory approach</td>
<td>Audiotaped sessions transcribed verbatim.</td>
<td>Healthcare</td>
<td>This present study builds on their previous work by outlining the process of building a simulation that emerged in collaboration with a Patient Facilitators (PF) and Standardised Patients (SPs), specifically as an educational tool to</td>
</tr>
<tr>
<td></td>
<td>Building a Simulation</td>
<td>Psychiatrist</td>
<td>2014</td>
<td>UK</td>
<td>Pilot</td>
<td>Pre-post Questionnaire</td>
<td>Medicine</td>
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<td>29.</td>
<td>Thomas, B. Courtenay, K. Hassiotis, A. Strydom, A. Rantell, K.</td>
<td>Standardised patients with intellectual disabilities in training tomorrow’s doctors</td>
<td></td>
<td></td>
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<td></td>
<td>To develop a programme to help undergraduate medical students and postgraduate trainee to improve their skills in communicating with people with intellectual disabilities through teaching sessions that had input from simulated patients with intellectual disabilities.</td>
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<tr>
<th></th>
<th>*Assessment of Surgical Residents' Interpersonal Communication Skills: Validation Evidence for the Communication Assessment Tool in a Simulation Environment.</th>
<th>Journal of surgical education</th>
<th>2016</th>
<th>USA</th>
<th>Quantitative</th>
<th>Questionnaire</th>
<th>Medicine</th>
</tr>
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<tr>
<td>30.</td>
<td>Trickey, AW. Newcomb, AB. Porrey, M. Wright, J. Bayless, J. Piscitani, F. Graling, P. Dort, J.</td>
<td>*Assessment of Surgical Residents' Interpersonal Communication Skills: Validation Evidence for the Communication Assessment Tool in a Simulation Environment.</td>
<td></td>
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<td></td>
<td>The purpose of this study is to provide validation evidence for usage of the CAT in simulation-based communication scenarios to assess general surgery resident's interpersonal communication skills.</td>
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<tr>
<td>31.</td>
<td>Veitch, D. Goossens, R. Owen, H. Veitch, J. Molenbroek, J. Bochner, M.</td>
<td>Evaluation of conventional training in Clinical Breast Examination (CBE).</td>
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<td>To evaluate the effectiveness of current training and assessment of novice students in clinical breast examination (CBE) and</td>
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<td></td>
<td>Authors</td>
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<td>Journal/Conference</td>
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<td>32.</td>
<td>Verma, A. Bhatt, H. Booton, P. Kneebone, R.</td>
<td>The Ventriloscope as an innovative tool for assessing clinical examination skills: Appraisal of a novel method of simulating auscultatory findings.</td>
<td>Med Teach</td>
<td>2011</td>
<td>UK</td>
<td>Pilot</td>
<td>Questionnaires Multiple choice and Likert-scale questions</td>
</tr>
<tr>
<td>33.</td>
<td>Wagenschutz, H. Ross, P.T. Bernat, C.K. Lypson, M.L.</td>
<td>Impact of repeated health behavior counseling on women portraying an overweight standardised patient</td>
<td>Journal of Nutrition Education and Behavior</td>
<td>2013</td>
<td>USA</td>
<td>Qualitative</td>
<td>Focus group</td>
</tr>
<tr>
<td>34.</td>
<td>Watkins, LV. Colgate, R.</td>
<td>Improving healthcare for people with intellectual disabilities: the development of ADVANCES IN MENTAL HEALTH AND INTELLECTUAL DISABILITIES</td>
<td>ADVANCES IN MENTAL HEALTH AND INTELLECTUAL DISABILITIES</td>
<td>2016</td>
<td>UK</td>
<td>Pilot</td>
<td>Focus group Feedback Questionnaires</td>
</tr>
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<td>35.</td>
<td>Williams, H.; Yang, L.; Gale, J.; Paranehewa, S.; Joshi, A.; Westwood, M.; Weerackody, R.</td>
<td>Simulation of cardiac emergencies with real patients</td>
<td>The clinical teacher</td>
<td>2015</td>
<td>UK</td>
<td>Pilot</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>36.</td>
<td>Wilson, A.; Hurwitz, C.A.; Smith, M.; Patino, T.; Kudalmana, A.S.; Gallas, M.</td>
<td>Parents as Teachers: Teaching Pediatrics Residents the Art of Engaging in Difficult Conversations</td>
<td>Journal of graduate medical education</td>
<td>2019 #</td>
<td>USA</td>
<td>Quantitative</td>
<td>Questionnaires</td>
</tr>
<tr>
<td>37.</td>
<td>Wright, E.J.; Khosla, R.K.; Howell, L.; Luan, A.; Lee, G.K.</td>
<td>Cleft Lip standardised Patient Examinations: The Role in Plastic Surgery Resident Education.</td>
<td>The Cleft palate-craniofacial journal: official publication of the American Cleft Palate-Craniofacial Association</td>
<td>2016 #</td>
<td>USA</td>
<td>Quantitative</td>
<td>Questionnaire</td>
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</table>
--- Not reported / unclear
* Duggan et al. and Fujimori et al. and Gemma and Pearson, published twice about the same research project. Trickey et al and Newcomb et al. follow-on study.
# These are from the re-review
^ These are from the reference list
≠ These are from the update search