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Nurse Educator

Learning from student experience: development of an international multi-modal patient safety education package --Manuscript Draft--

Manuscript Number:	NNE-2021-348R1
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Article Type:	Manuscript
Keywords:	Multidisciplinary; undergraduate students; Patient safety; quality improvement; clinical education; simulation.
Author Comments:	Title: Learning from student experience: development of an international multi-modal patient safety education package

We have revised as per the reviewers and editors requests.

Importance and novelty of the findings

The SLIPPs educational package is focused on addressing patient safety issues and was developed on real-life experiences of hundreds of students from various European countries.

The innovation not only involves the bundle of tools to address different learning outcomes, but also in the procedures used. Another important aspect of this study is the sharing of direct experiences, which shows how patient safety also has an emotional impact, both on students and professionals. Cultural peculiarities have been taken into consideration with a view to producing materials that can be adapted to different contexts.

Authorship

All authors meet the criteria for authorship, have read and approved the final manuscript, and all those entitled to authorship are listed as authors.

This manuscript is original and has not previously been published elsewhere (either partly or totally) and is not in the process of being considered for publication in another journal.

Ethics

The study gained necessary ethical approvals (Northumbria University, and the UK Health Research Authority (IRAS 223950) and was approved by institutional review boards at all investigational sites and undertaken according to ethical principles with their origin in the Declaration of Helsinki.

Additional companion paper

Alongside this current paper we are also submitting another companion paper - Learning about patient safety through sharing student placement experiences: development and use of SLIPPS international learning event recording tool.

We hope that the editorial team will consider both papers as complimentary to one another and potentially offering an interesting and informative set of papers to readers

RE: NNE-2021-348, titled "Learning from student experience: development of an international multi-modal patient safety education package"	
Reviewer comment	Authors response
<p>Reviewer #1: This is a very interesting overview of a project that I believe would be very beneficial to most educators. A few points to note---I am not sure that this could easily be transferred to an IPE encounter---just as you describe the different context across nursing education in different countries, the same issues would arise with other professions.</p> <p>In addition, I believe that this was developed from nursing student submissions (although, see my note asking for clarity about sample and outcome below)---so it is not possible to assume that this would be relevant to other professions as it is presented.</p> <p>I personally would like to see outcome data---what did the users access on the site?</p> <p>how was it used? did they provide feedback in any way about it's outcome?</p> <p>I know the latter may be hard to obtain, but it would be nice to judge if this work is meeting the needs of those who download it. However, the resources and repository would be very interesting to see. A few specific points:</p>	<p>We would like to thank you for your comments</p> <p>we have followed the editors requirements which relate to some of the points made here by reviewer 1</p>
Mixed quality practice? --perhaps this is the quality of clinical experience is mixed or varied?	revised to ‘diverse clinical practices’
Line 28: Revise: Despite some progress, twenty years after the IOM's to erris human, patient safety remains...	revised as suggested (now line 26-28)
Line 35-37: This is an interesting statement. Is this your hypothesis or is there actual data for this statement?	we have added a reference to substantiate this statement (now lines 33-35)– this is not our hypothesis but an established line of thought.
Line 39, I think you should take out 'and these"	we have removed ‘and these’ and replaced with ‘which’ in order to maintain flow (now line 37)

Line 85: Perhaps revise to "A total of 361 students from....what did they do? It seems that you used whatever they did to create the cases, but this is not clear. This is an important point that needs to be clarified.	this has been amended and the lines (now lines 79-87) re-structured to clarify – ' In total of 361 students from Finland, Italy, Spain, Norway, and the UK submitted SLERT reports describing and reflecting upon their learning experiences, which acted as data. The project was approved by institutional ethics review boards at all sites and undertaken according to ethical principles with their origin in the Declaration of Helsinki. All data were anonymized, and all students provided online informed consent. Country specific content and thematic analysis 18 was undertaken in stages as groups of reports were collected, followed by a cross-country comparison and amalgamation'
Line 163: do you have outcome data to show the visitors, what did they use? What feedback did they give about the site? For me, this is an important point and any outcome or evaluation data would be key	as per editors comment n11 this info has been removed
Reviewer #2: Thank you for the opportunity to read this well-written and interesting paper. I look forward to reviewing the resources.	thank you for reviewing the paper we appreciate the time reading papers takes
Editor's Revisions:	
1. Title p: Omit acknowledgement. We do not publish general acknowledgements per journal style.	Done -acknowledgements removed
2. Abstract format: Bold headings, no italics. Text on same line. 4 and elsewhere: change to nursing education	Changed as requested
3. Indent paragraphs. Health care 2 words per AMA style.	Paragraphs indented Healthcare changed to health care throughout
4. Unblind sentences. There seems to be a large number of ** - some of these sentence might be more generic and not need the specific names	Sentences unblinded and some specific names removed elsewhere (e.g. line 101, 105, 111, 114 x2, 125) Also lines 62-63 names of universities removed and only lead university and countries involved named line
5. 31 and elsewhere change doctors to physicians.	changed as requested

6. 55 students'	changed as requested
7. Use numbers even less than 10.	changed as requested
8. 103 This second paper was accepted so please insert citation number and add to reference list.	done- reference 19
9. 110 delete single quote marks	single quote marks removed (now lines 110-112)
10. 123 and learning (Figure 1). Then delete 125. Same for 137-138 and others	We have changed this to 'feelings and reflections.' Now line 124-125 We assume the comment about lines '125, 137-138 and others' is asking us to delete the references to figures and tables therefore we have deleted: 'Figure 1: Database' which was on line 125 Table 1: Simulation scenario example 138 Figure 2: Example of Barrows cards 154
11. Delete 162-163 as this will change continually. Plus readers do not need this	we assume this refers to 'Between January 2018- January 2021 the site had 82,225 visitors (577,189 hits) from 34 countries' and have deleted this text
12. 172 replace "push" with more scholarly word	changed to 'promote'
13. 193 paragraph is not needed. Many schools and programs are offered solely online (and have been for years unrelated to COVID). 200 many of the graduate programs in the US use e-learning and are not face to face. I think the key idea you are making is to use e-learning for global sharing	193 paragraph has been deleted The first 4 paragraphs of the discussion have been amended to remove the link to the pandemic and the assertion that e-learning is new and to therefore leave the focus more of global sharing – we hope this is more appropriate
14. 225 paragraph – might divide into 2	limitations section - paragraph divided into 2

15. 243 pan-European Multidisciplinary... edit the final paper to ensure that the same label is used for the project through the paper	'pan' removed and paper checked for consistency
16. Unblind all references. Revise the style to AMA format. If you are using EndNote set the style as JAMA (new version, no months). No comma after surname, no period after initials. Article title no italics. Journal name abbreviated per PubMed abbreviations and in italics. then period. Then year;vol(issue): p – p. Vol is not in bold. No "p". add doi (no period at end) for all journal articles. Other revisions too. See attachment. 341- add as one of the references.	unblinded and revised to JAMA new version as requested and references checked
17. Figure 1. Database. This will be available as Supplemental Digital Content via a link in the article. In the manuscript, please refer to it as Supplemental Digital Content, Figure. No # is needed as this is the only supplemental figure. Upload the file as Supplemental Data. Can the pdf be darker? Better quality? So it is easier to read.	Reference to 'Supplemental Digital Content, Figure' has been inserted in the first line of the section describing the database(line 117) <i>'A broad, multinational range of students' SLERT reports regarding their placement experiences of patient safety are available to consult and download from the Project website, as illustrated in the Supplemental Digital Content, Figure.'</i> The file has been uploaded as Supplemental Digital Content, Figure. The figure has been made darker and the sharpness enhanced as far as possible.
18. Figure 2 will not be Supplemental. In the manuscript, refer to this as Figure. (no #).	We have refereed to this figure on line 145 Yes we hold the copyright for this

<p>Do you hold the copyright for this? If not add a caption: Copyright by ... Reprinted by permission of..., date. Upload an email or letter granting this permission.</p> <p>Can you submit the original word document of this? The pdf will not produce well.</p>	<p>The word document has been uploaded</p>
<p>19. Table 1 will be available as Supplemental Digital Content via a link in the article.</p> <p>In the manuscript, please refer to it as Supplemental Digital Content, Table. (no # needed), Upload the file as Supplemental Data</p>	<p>We have referred to this table on line 136</p> <p>The file has been uploaded as Supplemental Data</p>

Learning from student experience: development of an international multi-modal patient safety education package

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Abstract

Background Patient safety is a global concern. Learning to provide safe, high quality care is core to nursing education.

Problem Students are exposed to diverse clinical practices, and experiences may vary between placements and across countries. Student experience is seldom used as an educational resource.

Approach An international, EU-funded project SLIPPs aimed to develop an innovative online educational package to assist patient safety learning. Based on student reported data and educational theory, multiple elements were iteratively developed by a multi-country, multidisciplinary group.

Outcomes The educational package is freely available on the SLIPPs website. Materials include; Student reporting and reflection tool, virtual seminars, student reports dataset, pedagogical game, high-fidelity simulation scenarios, scenario development and use guidelines, debriefing session model, videos of simulations already performed.

Conclusions E-learning enables removal of physical barriers allowing educators, professionals and students from all over the world to collaborate, interact and learn from each other.

Keywords

Multidisciplinary; undergraduate students; patient safety; quality improvement; clinical education; simulation.

Introduction

Despite some progress, twenty years after the Institute of Medicine's report "To Err is Human", ¹, patient safety remains a top global issue and patient harm is a daily reality in health care settings around the world.^{2,3} However, in addition to being places of care delivery, health care settings are contexts within which nurses, physicians and other health professionals are educated. Skills, knowledge and attitudes are learned in both academic settings and clinical contexts via various forms of internship. ⁴ Learning in clinical contexts is both explicit and implicit, and not everything learnt is actively or purposefully taught. ^{5,6} Students may role model or imitate the behaviour of professionals, therefore internships in environments where there is a 'poor' patient safety culture could risk perpetuation of unsafe practices. ⁷ Within the clinical reality of the practice setting students may witness, or be actively involved in, events that compromise patient safety, which are not always recognized, recorded, or reported. ⁸ Although students often recognize sub-optimal and potentially detrimental conditions for patient safety, they are not always able to carry out good practices or raise concerns for many reasons including fear of retaliation or a desire to be accepted by colleagues.

9-11

Innovation in patient safety education requires collaboration between faculty members, those in charge of clinical practice, and front-line staff to improve the safety culture in clinical teaching and learning contexts, whilst also creating a fertile environment that ensures emotional safety for learning. ^{4,12} All health professionals must feel part of this process and seek to develop a culture of safety that enables change. ¹³ Inter-professional and inter-disciplinary learning also offer students new insights and perspectives, encouraging the development of a range of views and potential reactions to different clinical situations, such as patient safety. ^{14,15} Sharing

similar situations with other countries can broaden the knowledge base of both students and educators, stimulating critical thinking and generating reflections on differently structured health care systems.¹⁶ Furthermore students' experiences and perspectives offer valuable insights as they approach clinical practice untainted by years of health care experience.^{11,17} However, tools are needed to access and record students' experiences, improve student learning, and heighten awareness regarding care provision and patient safety.^{4,12}

To enhance the teaching of patient safety for future health professionals, in 2016 a 3-year European project 'Sharing Learning from Practice for Patient Safety (SLIPPs)' was launched, co-financed by the Erasmus plus program of the European Union. The project team consisted of health care educators, front line health care professionals, chief executive officers in health care, patient safety managers/coordinators, and experts in technology and simulation. Led by Northumbria University in the UK, 7 universities across 5 countries (Finland, Italy, Norway, Spain, UK) were involved.¹⁸

SLIPPs aimed to promote formal and informal learning based on reflecting upon, and analysing, real events experienced by students in clinical settings. This contemporarily offers a student and patient-centred approach to improve performance through learning and sharing, strengthening collaboration between education institutions and health care organisations. Thus the project team developed a virtual, international and multi-professional, open access platform for health professional educators, students and practitioners, aimed at facilitating patient safety teaching and learning, and based on qualitative analyses of data collected from European students.

¹⁸ The open access platform, ([https://www. SLIPPs.eu](https://www.SLIPPs.eu) 'Learning Centre' link), offers access to a multi-modal educational package comprised of a range of materials and

'tools' with different objectives and methodologies to facilitate educational innovations and promote learning about patient safety.

The SLIPPs Educational Package

The development of the educational package elements is based on the project and qualitative data collected through the SLIPPs Learning Event Recording Tool (SLERT). ¹⁸ In total of 361 students from Finland, Italy, Spain, Norway, and the UK submitted SLERT reports describing and reflecting upon their learning experiences, which acted as data. The project was approved by institutional ethics review boards at all sites and undertaken according to ethical principles with their origin in the Declaration of Helsinki. All data were anonymized, and all students provided online informed consent.

Country specific content and thematic analysis ¹⁹ was undertaken in stages as groups of reports were collected, followed by a cross-country comparison and amalgamation. Data were analysed by profession, country, year of programme, then by type of reported event (e.g., procedures, pharmacological therapy, communication), and setting (e.g., hospital, community). From the analysis of the experiences collected it was possible to identify the situations most frequently reported, and, on the basis of this prototype cases were created and then refined for use as educational material. Analysis and refinement were iterative and undertaken throughout the project. The resulting educational package materials, available at the Learning Centre comprise 5 sections: Learning Event Recording Tool; Transnational Virtual Seminars; Learning Event record Database; Simulation Scenarios, and Patient Safety Card Game. Each element is now described.

SLIPPS Learning Event Recording Tool (SLERT)

This simple-to-use tool is underpinned by existing knowledge and theory, was systematically developed, and included pre-testing, piloting and back translation into the required languages; English, Norwegian, Italian, Spanish, and Finnish. The tool is flexible (for personal, course or research use) and can be used via a range of platforms.²⁰ The tool promotes student description, consideration and reflection, upon patient safety learning events that students have experienced in practice placements and can be used as both a data collection method and an educational activity.

Transnational Virtual Seminars

4 virtual seminars in varying formats, for viewing or download, were produced based on the project materials, findings and analysis of SLIPPS Learning Event Records. The seminars cover Policy and patient safety, Learning safety from good practice, An example of student learning about patient safety, and a presentation from a European patient safety education conference.

Learning Event Record Database

A broad, multinational range of students' SLERT reports regarding their placement experiences of patient safety are available to consult and download from the Project website, as illustrated in the Supplemental Digital Content, Figure. The selected reports are available in a range of languages to facilitate access. It is envisaged that these reports can be used in a variety of ways, for example by educators as case studies for educational discussions, student assignments or seminars which could focus on diverse issues including patient and staff safety, care pathways, incident reporting, raising concerns, learning from best practice etc. The reports are also available for research purposes. This is an important repository for

educators, students and researchers, enabling sharing of episodes, feelings and reflections.

Simulation Scenarios

A range of Simulation Scenario materials were developed, underpinned by recognised theory and standards for simulation.^{21,22} Best practice standards for the development and conduct of simulation scenarios were followed, which included phases of planning, scenario development, scenario conduct and debriefing.²² English language was adopted to facilitate sharing and use of the materials internationally. Documents cover theoretical and methodological aspects, and materials include guidelines for scenario development, templates for teachers or facilitators, slides, scripts, de-briefing guides, feedback sheets, a virtual 'storyboard' and 2 videos of role-played scenarios. As illustrated in the Supplemental Digital Content Table, for each video scenario, a range of documents are available enabling educators to tailor the materials making them suitable for their students.

The Patient Safety Card Game

A 'Barrow's cards' game, based on problem-based learning²³ was developed drawing on analysis of student reports collected using the SLERT. The deck of cards consists of a first "situational card" describing the initial context, with subsequent cards developing the storyline and posing specific problem situations to be resolved (see Figure). The game can be used by individuals or groups, with or without facilitation²³ and stimulates development of knowledge and decision-making skills through a nurse-patient encounter scenario.²⁴ At each problem point, students must identify an appropriate solution or strategy. On the back of each card, the correct decision to make and its rationale are described. In this way, students can apply their problem-solving

skills, stimulating individual and group learning. Given the cards were originally designed to be used individually, it was decided to report both the correct and incorrect decisions or behaviours on the back of each card, along with the rational supporting the correct choice and indications for further investigation.

Discussion

This paper outlines an international, multidisciplinary, multi-modal online educational package to promote patient safety education in the curricula of health professions through diversified, innovative and engaging methodologies for the student. The package includes a range of educational tools and materials covering different topics and with nursing students and some other health care professions as protagonists, but with a single common denominator: patient safety. All tools and materials can be downloaded free from the SLIPPs website, where it is also possible to provide feedback (<https://www.slipps.eu/>)

The package acts as a digital, e-learning adjunct for educators and learners, and thus helps bridge the gaps found among students in the health care professions in their educational curricula with regard to the teaching of patient safety ^{2,12}. A literature review in the field of nursing education concluded that the e-based learning facilitates a sense of control for students and encourages reflection, offering an excellent adjunct to traditional teaching.²⁵ Teaching and learning by means of digital technologies also has the potential of reaching out to a much larger audience than traditional methods, while limiting the number of trainers needed. This could contribute to the cost-effectiveness of this method although evidence is still very sparse and fragmented with further research needed.^{26,27}

There is evidence that digital education for health professionals is as effective as traditional learning, as in the case of high-fidelity mannequins, which have been found to be even more effective at improving psychomotor skills than traditional learning with low-fidelity mannequins.²⁶ However in order to buy into digital education and e-learning, nurses and health professionals need to know which are the most appropriate pedagogical methods (e.g. problem based learning), possess social and communication skills, and be aware of any ethical considerations to ensure a positive learning experience.²⁸ It is also crucial that the design, and the professional competencies that underpin digital and e-learning materials are carefully assessed, informed, discussed and collaboratively agreed.²⁵ All elements of the SLIPPs educational package are the result of an EU funded study underpinned by pedagogical theory, clinician and educator expertise, and based on real student experiences¹⁸. The package was developed drawing on recent global health care guidelines, which promote an increasingly pressing guarantee of patient safety and quality of care.³

The international dimension of this study fosters the creation of a direct link between educators, universities, students and, consequently, health professionals throughout Europe. This offers several opportunities: at the educational level, the sharing of materials and the rationale behind them; it facilitates networking and enables professionals and educators to adapt the online resources or use them to develop new teaching materials and integrate them into their lessons and curricula. Moreover, it offers the opportunity to seek solutions to a global problem by joining forces, achieving a globalized sharing of educational techniques that develop clinical practices aimed at ensuring patient safety, and encouraging sharing among professionals of different disciplines, in a context where professional migration is increasing.²⁹ Patient safety is a pervasive problem that permeates through the cracks of health care settings

worldwide,³ and can spread across all levels of health care, from medication errors to mortality, from human error to lack of resources. Therefore, the nature of our patient safety educational materials is multi-professional, enabling it to be used on a wide scale, and aimed at developing interprofessional, skills such as teamworking.¹⁵

The novelty of this training package is the source from which the training needs were drawn (i.e., the stories written by the students, their direct experience during the clinical internship), which the students themselves considered important in terms of learning about patient safety. The sharing of the issues experienced during theoretical and practical lessons by students in the health professions could facilitate learning, creating that sense of confidence needed to develop self-efficacy, which underpins effective learning.^{4,10,30} Moreover, most of the cases reported by the student nurses underlined the broad scope of nursing across various practice settings, as well as the strong potential of the role of nurses in safeguarding patient safety, since they are the health professionals who are in contact with patients on a 24/7 basis, but also with all the other health professionals.

Limitations

The main limitation of this project is linked to the intent to create materials with transversality and transferability to the many different European social and health contexts including all the material (except a range of SLERT reports in the database which remain in native language) being produced in English. This means that some peculiarities linked to the specific contexts and cultures of the different countries were lost. However, in the simulation scenario videos the clinical cases and type of communication established between health professionals and patients were

necessarily context specific. Moreover, the devices and equipment used to ensure the realism of the scenario were sometimes not commonly used in other countries.

An attempt has been made to overcome these limitations through constant and continuous sharing of all phases of the study with the 5 countries involved, to ensure greater applicability of the material produced. Furthermore, we suggest that by highlighting differences in instruments, procedures or communication modalities described in the materials, educators can stimulate student interest and inquiry regarding diverse cultural, national, and organizational practices thus enhancing cultural competency - yet another issue of growing importance to patient safety in an increasingly global world

Conclusion

The SLIPPS European Multidisciplinary Patient Safety project was planned in response to the challenge to improve European patient safety competence and education. Every tenth patient suffers harm during their care episode, yet the majority of adverse care episodes and harm are preventable. Stronger collaboration is needed as gaps between academic and workplace contexts seem to negatively impact upon students' learning. Therefore, patient safety education innovation needs health care faculty members', clinical practice leaders' and staff members' collaboration to improve the culture of safety in clinical teaching and learning settings. The SLIPPs educational package focused on patient safety was based on the experiences of hundreds of students from different European countries. The innovation is not only in the outcome, but also in the procedures used: the sharing of direct experiences is certainly a strong point of this study, which intends to demonstrate how the problem of safety also has

an emotional impact on professionals, and students. Cultural peculiarities have been taken into consideration with a view to producing materials that can be adapted to different contexts.

Creating an online, worldwide accessible platform, where you can find materials but also discuss with colleagues and other professionals about patient safety experiences, is a good starting point for improving patient safety. Furthermore, the sharing of educational material and methodologies in the health sector could prepare the grounds for multi-professional and international networking.

References

1. Kohn LT, Corrigan J, Donaldson MS. *To Err is Human: Building a safer health system*. Washington, DC: Institute of Medicine (US) Committee on Quality of Health Care in America;2000.
2. Arora S, Tsang F, Kekecs Z, et al. Patient Safety Education 20 Years After the Institute of Medicine Report: Results From a Cross-sectional National Survey. *J Patient Saf*. 2020 doi.10.1097/pts.0000000000000676
3. Yu A, Flott K, Chainani N, Fontana G, P DA. *Patient Safety 2030*. London, UK: NIHR Patient Safety Translational Research Centre at Imperial College London and Imperial College Healthcare NHS Trust 2016.
4. Steven A, Magnusson C, Smith P, Pearson PH. Patient safety in nursing education: contexts, tensions and feeling safe to learn. *Nurse Educ Today*. 2014;34(2):277-284. doi.10.1016/j.nedt.2013.04.025
5. Eraut M. Non-formal learning and tacit knowledge in professional work. *British Journal of Educational Psychology*. 2000;70:113-136. doi.10.1348/000709900158001

- 272 6. Raso A, Marchetti A, D'Angelo D, et al. The hidden curriculum in nursing
273 education: a scoping study. *Medical Education*. 2019;53(10):989-1002.
274 doi.10.1111/medu.13911
- 275 7. Mileders LP, Schmidt A, Dimai HP. Clinicians should be aware of their
276 responsibilities as role models: a case report on the impact of poor role
277 modeling. *Medical Education Online*. 2014;19(1) doi.10.3402/meo.v19.23479
- 278 8. Ion R, Smith K, Dickens G. Nursing and midwifery students' encounters with
279 poor clinical practice: A systematic review. *Nurse Education in Practice*.
280 2017;23:67-75. doi.10.1016/j.nepr.2017.02.010
- 281 9. Fagan A, Lea J, Parker V. Student nurses' strategies when speaking up for
282 patient safety: A qualitative study. *Nursing & Health Sciences*. 2021
283 doi.10.1111/nhs.12831
- 284 10. Fisher M, Kiernan M. Student nurses' lived experience of patient safety and
285 raising concerns. *Nurse Educ Today*. 2019;77:1-5.
286 doi.10.1016/j.nedt.2019.02.015
- 287 11. Jack K, Levett-Jones T, Ion R, et al. 'She would wash the patients as if she was
288 scrubbing a dirty plate in the sink': Exploring nursing students experiences of
289 care delivery. *Nurse Education Today*. 2020;90:104444.
290 doi.10.1016/j.nedt.2020.104444
- 291 12. Cresswell K, Howe A, Steven A, et al. Patient safety in healthcare
292 preregistration educational curricula: multiple case study-based investigations
293 of eight medicine, nursing, pharmacy and physiotherapy university courses.
294 *BMJ Qual Saf*. 2013;22(10):843-854. doi.10.1136/bmjqs-2013-001905

13. Murray M, Sundin D, Cope V. The nexus of nursing leadership and a culture of safer patient care. *Journal of Clinical Nursing*. 2018;27(5-6):1287-1293. doi.10.1111/jocn.13980
14. Carpenter J, Dickinson C. Understanding interprofessional education as an intergroup encounter: The use of contact theory in programme planning. *J Interprof Care*. 2016;30(1):103-108. doi.10.3109/13561820.2015.1070134
15. Turrentine FE, Schroen AT, Hallowell PT, et al. Enhancing Medical Students' Interprofessional Teamwork Through Simulated Room of Errors Experience. *Journal of Surgical Research*. 2020;251:137-145. doi.10.1016/j.jss.2020.02.001
16. Kirkman T, Hall C, Winston R, Pierce V. Strategies for implementing a multiple patient simulation scenario. *Nurse Educ Today*. 2018;64:11-15. doi.10.1016/j.nedt.2018.01.032
17. Francis R. *Report of the Mid Staffordshire NHS Foundation Trust public inquiry: executive summary*. Vol 947: The Stationery Office; 2013.
18. Steven A, Tella S, Turunen H, et al. Shared learning from national to international contexts: a research and innovation collaboration to enhance education for patient safety. *Journal of Research in Nursing*. 2019;24(3-4):149-164. doi.10.1177/1744987118824628
19. Saldaña J. *The Coding Manual for Qualitative Researchers*. Los Angeles: Sage; 2016.
20. Steven A, Pearson P, Turunen H, et al. Learning about patient safety through sharing student placement experiences: development and use of SLIPPS international learning event recording tool *Nurse Educator*. 2021.

21. Jeffries PR. A framework for designing, implementing, and evaluating simulations used as teaching strategies in nursing. *Nurse Education Perspectives*. 2005;26:96–103.
22. Committee IS. INACSL Standards of Best Practice: SimulationSM Simulation Design. *Clinical Simulation in Nursing*. 2016;12:S5-S12. doi.10.1016/j.ecns.2016.09.005
23. Barrows HS, Tamblyn RM. The portable patient problem pack: a problem-based learning unit. *Journal of medical education*. 1977;52(12):1002-1004. doi.10.1097/00001888-197712000-00007
24. A. K. The Fundamentals of Care Framework as a point-of-care nursing theory. *Nursing Research*. 2018;67:99-107. doi.10.1097/NNR.0000000000000271
25. McDonald EW, Boulton JL, Davis JL. E-learning and nursing assessment skills and knowledge - An integrative review. *Nurse Educ Today*. 2018;66:166-174. doi.10.1016/j.nedt.2018.03.011
26. Brusamento S, Kyaw BM, Whiting P, Li L, Tudor Car L. Digital Health Professions Education in the Field of Pediatrics: Systematic Review and Meta-Analysis by the Digital Health Education Collaboration. *J Med Internet Res*. 2019;21(9):e14231. doi.10.2196/14231
27. Jackson L, O'Connor A, Paneque M, et al. The Gen-Equip Project: evaluation and impact of genetics e-learning resources for primary care in six European languages. *Genet Med*. 2019;21(3):718-726. doi.10.1038/s41436-018-0132-3
28. Konttila J, Siira H, Kyngas H, et al. Healthcare professionals' competence in digitalisation: A systematic review. *J Clin Nurs*. 2019;28(5-6):745-761. doi.10.1111/jocn.14710

- 342 29. Aluttis C, Bishaw T, Frank MW. The workforce for health in a globalized context
343 – global shortages and international migration. *Global Health Action*.
344 2014;7(1):23611. doi.10.3402/gha.v7.23611
- 345 30. Eraut M. Non-formal learning, implicit learning and tacit knowledge in professional
346 work. . In: Coffield F, ed. *The Necessity of Informal Learning*. 1st ed. Policy
347 press; 2000:12-31.
- 348


Figure

Figure. Example of Barrows cards

Situation 1: Card 1

Front

Situation 1



You are doing an internship /placement in a general surgery ward, and together with the senior nurse on duty you are taking care of an 80-year-old man. He is on the third post-operative day and was completely autonomous and self-caring before the operation.


The nurse tells you that you are assigned to this patient and responsible for his care.

Back

As soon as the morning hand over is finished, the nursing staff starts planning the morning's work.


The senior nurse on duty tells you that it is a priority that the patient assigned to you reacquire his complete autonomy as soon as possible.

What will you do?



Situation 1: Card 2 (Answer A)

Front




Check the assessment data collected on admission to the ward.

Take note of: the type of surgery the patient has undergone, the therapy in progress, and the principals of the nursing care plan (e.g. nutrition, mobilisation, psycho-social aspects, elimination, mobilisation etc)

Before planning and implementing any intervention, including that of mobilization.

Back

CORRECT



Taking charge of a patient and the implementation of appropriate and safe care interventions cannot be separated from the collection / verification of data, indispensable for identifying the patient's needs and goals of care, and for planning nursing interventions

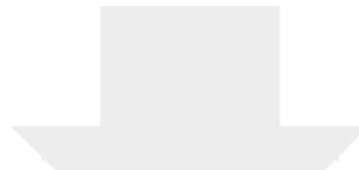
For further information on what should be the correct professional action in these situations, consult the Nursing Code of practice or 'Deontological' Code, any role or Professional Profiles, the Nursing process, care planning or nursing principles used in your country or organisation.



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