



The interaction of nurses with patients and family when expressing difficult news: A study using video recordings

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ABSTRACT

Objectives: To evaluate and explore nurses' communication skills when providing difficult news to patients and their family members. **Methods:** A cross-sectional study was performed. The study employed a combination of qualitative and quantitative observations to analyze 49 videos recorded nurses' interaction with standardized patients in a communication training course from 2019 to 2021. A validated checklist named The Liverpool Communication Skills Assessment Scale was used to quantitatively evaluate the level of nurses' communication skills, and qualitative comments provided by observers were explored to explain quantitative results found. **Results:** The "nonverbal behavior" component of nurses' communication was at acceptable levels, however, other components including "introduction", "respect and empathy", "questioning" and "giving information" were at poor levels. **Conclusion:** Communication skills of "introduction", "respect and empathy", "questioning" and "giving information" of nurses in adverse situations need to be improved, and hospital's leader board should have viable measures to raise nurses' awareness about providing truth to the patients or family.

Keywords: Simulation; Standardized patients; Communication skills; Adverse; Nurses

INTRODUCTION

Medical encounters encompass a variety of interactions, such as medical history-taking, consultations, and daily care management, all of which require effective communication. In addition to verbal communication, nonverbal cues such as gestures, body language, facial expressions, and eye movements are also involved in an effective communication. Research has demonstrated that effective communication skills are essential in improving the quality of care delivered by healthcare

teams, enabling them to identify patients' needs thoughtfully and enhance patient satisfaction^{1,2}. Consequently, undergraduate nursing programs and continuous nursing education have placed significant emphasis on training communication skills for nurses over several decades, which aim to improve nurses' performance in communication and enhance their confidence when interacting with patients and their families. The act of informing patients and their family members about medical errors is widely recognized as a complex and challenging

task for healthcare professionals. Within this context, it is commonly held that nurses who have been implicated in such errors must convey their genuine remorse, exhibit a sense of deference, and honestly committed to take responsibility for the mistakes ³. When faced with patients who have been harmed by their actions; however, nurses frequently experience feelings of anxiety and depression, which can impair their ability to communicate effectively ⁴. In addition to these psychological factors, inconsistent guidance and a lack of training can act as significant barriers to successful communication in the nurse-patient relationship ^{5,6}.

Several studies conducted in Vietnam have examined communication between healthcare providers and patients ^{7, 8, 9, 10}; nevertheless, less attention has been given to the ability of healthcare staff to handle challenging situations such as medical errors. A recent cross-sectional study ¹¹ provided an overview of nurses' communication in a public hospital in Vietnam, examining the prevalence of communication between nurses and patients and identifying factors associated with communication quality. However, this study did not specifically investigate the performance of nurses' communication skills in complex situations such as medical errors. Conversely, a cross-sectional study conducted in a large surgical and trauma hospital in Vietnam explored healthcare professionals' experiences with adverse events but did not assess their communication skills ¹². Consequently, research examining the communication skills of nurses in complex situations such as medical errors appear to be lacking in Vietnam.

Simulation-based education

encompasses a broad range of training approaches depending on critical requirements such as curriculum design, intended learning outcomes, and cost-effectiveness. Some methods have been effectively used such as task trainers, role-play, high-fidelity simulators, computer-based virtual environments and standardized patients or simulated patients (SPs). Regarding communication skills training, while observing nurses' interactions in real-life complex conversations would be ideal, legal concerns make this difficult for researchers. Therefore, the common alternative approach is to use SPs, individuals who are trained to portray a specific medical case scenario or patient role in a standardized and consistent manner, in both training and research.

Despite the substantial effort required to develop scenarios, establish simulated clinical environments, and provide training for SPs, this approach is a valuable means for improving and evaluating the clinical competence of nurses. The use of SPs is widely acknowledged as a practical, reliable, and valid method for evaluating interpersonal skills ¹³. Furthermore, the implementation of SPs in healthcare education has been shown to result in improvements in knowledge, attitudes, and learner satisfaction ^{14, 15, 16}. Additionally, this method was considered to remove barriers reported in complex conversations such as legal claims or patient satisfactory reports ¹⁷, and thus it especially well-suited to explore nurses' communication skills.

Although communication skills are key elements in nursing professional development, little was known about nurses' communication skills used in complex conversations in Vietnam. This study

assessed how nurses deliver communication in an adverse event to SPs following a scenario, in order to suggest the concentrated content for the training curriculum.

RESEARCH SUBJECTS AND METHODS

Research subjects: The two objectives of this study were: (1) to evaluate nurses' communication skills when providing difficult news to patients and their family members, and (2) to explore nurses' interaction with patients and their family members when providing difficult news.

Research questions: The research questions of this study were as follows:

To what extent do nurses communicate with patients and family when providing difficult news?

How do nurses display communication skills when providing difficult news to patients and family?

Research methods: Design: A cross-sectional research design was utilized to assess the communication patterns of nurses with family members of patients. The study employed a combination of qualitative and quantitative observations to analyze recorded videos of these interactions.

Participants: The participants of this study were nurses who participated in the training program "Communication in Medical Encounters" at a Medical Simulation Center from 2019 to 2021. Videos capturing nurses' communication skills when delivering a difficult information with patient's family in a simulated scenario were used as a data source for study's purposes.

Selection criteria:

Willing to participate in the study.

The video recording of that nurses' communication meets the following requirements:

- Clear sound and images.
- Had full scenario without any technological interruption.
- Objectives in the video were captured with a full body and clear face.

Sampling: Convenience sampling method was applied for this study. In total 49 nurses with their qualified video recordings were included for analysis.

Setting the scene and standardized patients (SPs): We developed a scenario to represent nurses' responsibilities for unexpected situations, which was one of the training topics of the Communication program at the Medical Simulation Center. The scenario was pilot tested by using practiced nurses until it reached reality.

We set one SP who was the patient's father/mother in a patient room with his/her son. A mannequin was placed on the bed as the patient was sleeping. The SP was sitting alongside the bed and looking at the patient. A chair also was set at the corner of the room to exam what position learners will choose during communication. We recorded each interaction between the SP and the nurse with an unobtrusive camera.

The standardized patients were from the Medical Simulation Center and were trained to perform their characteristics until they could accurately portray the scenario.

To allow all nurses to complete the scenario, each nurse had five minutes to read the opening data of the scenario and then a maximum of seven minutes to communicate with the SP. There was no specific instruction given to the learners

because this training course used “Jump in the water” teaching method. It means that learners experienced simulated scenarios before theory session, which required them to solve the problem based on present skills and knowledge. Therefore, what they performed in simulation sessions was awarded as their most natural behavior and represented their present ability in communication.

Instruments: To assess several aspects of communication skills in nurses using a standardized approach, a validated checklist named The Liverpool Communication Skills Assessment Scale (LCSAS) ¹⁸ was used to quantitatively evaluate the level of communication skills. The scale was designed to measure health care provider’s communication skills in five fundamental core competencies namely: introductions (2 items), nonverbal behaviour (3 items), respect and empathy (2 items), questioning (3 items) and giving information (2 items). The score sheet used a Likert numeric scale with four anchors: 0 indicates unacceptable, 1 indicates poor, 2 indicates acceptable and 3 indicates good. The total score was used to indicate nurses’ general communication level with higher score indicates better communication. Concurrently, the LCSAS includes personalized feedback on observed communication skills. The qualitative comments provided by observers were explored to explain and illustrate quantitative results found.

The LCSAS is appropriate for our study as it was developed for an Objective Structured Video Exam, evaluating communication abilities ¹⁹, and the reliability (Cronbach’s α) of the LCSAS in our study was $\alpha = 0.79$. Literature demonstrated the LCSAS as a dependable instrument with satisfactory validity ²⁰.

Data collection

To evaluate the nurses’ abilities to communicate with the SP, two trained examiners independently watched the video and completed their assessment on the LCSAS.

To explore nurses’ communication skills performed in the video, the examiner’s personal comments and the audio-visual text was transformed into written text as the study’s qualitative data. 12 items of the LCSAS were used as a structured transcription guideline to describe all aspects of videos included but unlimited to physical characteristics such as eye contact, body position, hand movement, facial expression and gestures combined with intonation.

Data analysis

We performed quantitative data analyses using Stata 16.1. To determine performance ratings, we calculated the mean of subscales and the overall score of the two examiners. Cronbach’s alpha was used to detect the overall internal consistency of the skills. It was also used to calculate the internal consistency of the skills within each component.

Ethical considerations

Regarding legal issues, both trainees and SPs were asked to sign on a Simulation Confidentiality Agreement and Consent to Video during their training courses. The consent forms indicated clearly that all learning materials such as feedback forms and video records of communication encounters will be used for learning and research purpose only. Furthermore, the Institutional Ethical Review Board of Hospital A approved the study.

RESULTS

Out of the 49 nurses, a majority of 41 were of the female gender while the remaining 8 were male. A majority of participants were classified as registered adult nurses, with a total of 31 respondents. However, the study also included 10 participants categorized as paediatric nurses and an additional 8 respondents identified as infant nurses. The participants in study were between an age group (24-30 years).

Communication scores on five competencies

Table 1 shows communication skills of nurses in difficult conditions were satisfactory with the total mean score of 20.04 (Standard deviation = ± 4.37). Of the 49 nurses, none of them achieved a total score of 30 and above, 22 nurses (45%) presented with the total score ranged from 20 to under 30, and three of them (6%) got the total score at under 10.

Table 1. Mean of the total score

	Mean	SD	Min	Max
Total score	20.04	4.37	9.5	28

Among the 5 fundamental core competencies (Table 2), nurses were scored at good level on their nonverbal behaviour with the mean score of 2.22 (SD = ± 0.44), whereas questioning was at poor level with the mean score of 1.34 (SD = ± 0.51). Other three competencies comprising “introduction”, “respect and sympathy”, and “giving information” were graded at the same level of acceptable with the mean score of 1.56 (SD = ± 0.88), 1.56 (SD = ± 0.62) and 1.52 (SD = ± 0.35) respectively.

Table 2. Core competencies’ mean score

Core competencies	Mean	SD	Min	Max
Introduction	1.56	0.88	0	2.75
Nonverbal behavior	2.22	0.44	0.66	3
Respect and sympathy	1.56	0.62	0	2.75
Questioning	1.34	0.51	0.5	2.66
Giving information	1.52	0.35	0.5	2

Communication scores on individual items

Table 3 shows the communication scores on individual items among five domains.

Table 3. Single item’s mean score

Items		Mean	SD	Min	Max
Introduction	Greeting and checks patient identity	1.27	0.92	0	2.5
	Introduction of self and role	1.85	1.24	0	3
Nonverbal behavior	Audibility and enunciation	2.56	0.58	1	3
	Eye contact	2.4	0.59	0.5	3
	Non-verbal facilitation	1.71	0.62	0	3

Items		Mean	SD	Min	Max
Respect and empathy	Respects patient	1.76	0.65	0	3
	Empathy-reflects patient's feelings	1.36	0.65	0	2.5
Questioning	Appropriate open and closed questions	0.8	0.69	0	2.5
	Clarifying questions and summarizing	1.56	0.56	0.5	3
	Sensitivity of questions	1.67	0.54	0.5	2.5
Giving information	Uses clear language	2.28	0.59	0.5	3
	Ensures understanding and closes appropriately	0.76	0.34	0	1.5

Introduction

In two items of the introduction domain including “introduction of self and role” and “greeting and check patient” were not considered as satisfactory. The mean score was 1.85 (SD = ± 1.24) for “introduction of self and role”, and 1.27 (SD = ± 0.92) for “greeting and checks patient identity”. Typically, nurses immediately provide their names to the SP when entering the room; however, they did not adequately mention their responsibility to the patient, ask at least two patient identity information. The term most referred explicitly to the introduction of role and checking patient identity: “*Are you Hoang Duong's (the patient's name in the scenario) dad? I'm [name] and I'm a nurse.*”

Nonverbal behaviour

Nurses were scored highest in the two elements of “eye contact” and “audibility and enunciation”. The mean scores on these items were 2.56 (SD = ± 0.58) and 2.4 (SD = ± 0.59) respectively. Almost all videos showed that nurses communicate with the SP in a gentle and clear voice. The cadence and timbre of voice were at reasonable tone for SP to hear and understand clearly. In addition, videos pointed out that nurses kept constant eye contact with patients when talking with them.

The non-verbal skills of nurses were marked lower than eye contact and tone of voice with the mean score 1.71 (SD = ± 0.62). A number of videos showed nurses' inappropriate non-verbal skills to express ideas during the interaction with the SP. Firstly, nurses in 23 of 49 videos communicated in the standing upright position with the SP who was sitting on a chair. Although nurses in the remaining videos corresponded in the sitting position, the distant to the SP and the position in some videos were considered as uncomfortable. For instant, the distance between female nurse and male SP was observed just under 1 m in a video, and in another video the nurse did not sit opposite the SP, resulted to the SP sometimes turned his head around to interact with nurse. Furthermore, movement of hands, arms such as shaking thigh, raising hands up and down, or remaining in only one position of the whole body during most of communication time was presented in several videos.

Respect and sympathy

Nurses scores in expression of “empathy” were lower than that of “respect” (mean = 1.36 and 1.76, SD = ± 0.65 and ± 0.65). The respect behaviour most referred among 49 videos was a silence when the SP was expressing their angry (60% of videos). Additionally, nurses offered a verbal apology in 100% of videos; however, 45% of these videos phrase the apology in a manner that did not express empathy for the unhappy feeling the SP had experienced: *“I’m very sorry for that problem but your son needs to ...”*. Some nurses attempted to acknowledge the SP’s emotions about unexpected situation via the following statement: *“I’m also a mother/father like you and I totally understand what you are feeling now”*, whereas 30% of nurses refused or underestimated the SP’s concern about his son condition. Typical validation statement included:

SP: “My son is very weak now. He has haemophilia. You know it. It took a long time to stop bleeding in previous tests. How can he overcome another test just in a short time.”

Nurse: “I understand you are worried about your son’s health, but this test actually does not have impact on his condition. I will withdraw only 2ml. It’s really a small volume of blood.”

Questioning

The nurses received the second lowest score in “appropriate open and closed question” item with the mean score was 0.8 (SD = ± 0.69). Most of questions delivered by nurses in 49 videos was yes/no questions. The nurses usually admitted responsibility in clarifying their questions only after the SP requested for further details about the blood test order (mean = 1.56, SD = ± 0.56). Then, they typically made a request in a straightforward manner rather than questioning if the SP allows them to perform procedures.

Nurse: “Your son needs to take the blood test again.” [stop talking and no further information before or after giving this request to the SP]

SP: “Why? My son had already taken this test. You did it for him, didn’t you? Why does he need another one?”

Giving information

In this study, nurses successfully choose words that could be understood by SP and avoid confusing and jargon language; however, SP did not indicate the amount of information they understood. Use of clear language was scored at 2.28 (SD = ± 0.59) which was much higher than that of ensures understanding (mean = 0.76, SD = ± 0.34). This result indicated that very few of nurses in this study made questions to measure which information SP got from the conversation, and if they understood it correctly.

Furthermore, nurses were less consistent to explicitly state the causes of the adverse event. Particularly, out of 49 nurses, 27 (55%) told the truth about the mistake and clearly explained the causes, whereas 7 nurses (14%) admitted that the mistake had occurred but blamed it for other causes, and 15 nurses (31%) completely avoided talking about the unexpected accident, then suggested that taking another blood examination was a part of treatment process.

A typically statement of the accident without clearly reasons was as follows:

“There was something wrong with your son’s blood test reported by the lab as it did not work. I’m very sorry for that problem but your son needs to take this test again”.

Another common statement was that taking blood tests again is the doctor’s orders:

“I’m very sorry but Hoang Duong must take another blood test. I just have received an order from the doctor that he would like to review your son’s condition”.

Nurses sometimes disclosure the error but do not mention it as an omission they made, indeed, he/she presumed the laboratory personal or manufacturer as contributors to the error. In the videos, the company was frequently implicated:

“The blood test had a problem. This is our fault. I’m so sorry about it ... There was an unexpected situation occurring during the taking blood test process, because of manufacturer’s mistakes, the blood tubes suddenly didn’t work ... this is the manufacturer’s fault ... so I am not able to predict it, I just know it when putting blood in...”

DISCUSSION

Our research indicates that nurses struggle to seek the patient’s family’s permission for continuing nursing care if they did mistakes. The total LCSAS score shows an issue which should be more effectively focused on in the future. The research results indicated no nurse achieved good scores when communicating with the SP, though they demonstrated good non-verbal communication skills.

This study confirms the neglect or incomplete implementation of the simple skill of greeting in nursing practice. Our findings align with a previous study where 69.3% of participants failed to provide their full name, title, and role to patients ²¹. The issue of inadequate introduction may stem from the assumption among nurses that patients they have previously interacted with do not require reintroduction. However, research suggests that introducing oneself and providing credentials is an effective means of establishing trust before engaging in patient-nurse interactions ²². Consequently, a proper introduction is a critical element of communication that helps strengthen the patient-nurse relationship.

Our study found that nurses performed nonverbal communication skills, such as tone and eye contact, exceptionally well. It can be explained that nurses were aware of the challenging nature of the situations they encountered and anticipated negative responses from the SP. As a coping mechanism, nurses may adopt a gentle and courteous tone when communicating with patients, with the hope of creating a friendly environment that facilitates the execution of complex tasks. In other words, nurses’ failure to exhibit appropriate body language and posture during interactions with patients may create an unfriendly atmosphere between nurses and patients. For example, inadvertent gestures, such as leg shifting or swinging, can reveal the speaker’s current emotional state, indicating nervousness or stress ²³. Additionally, nurses who adopt a higher physical position, such as standing or maintaining an inflexible posture throughout the conversation, risk appearing overbearing or disinterested ²⁴, leading to undesirable effects on the interpersonal relationship.

Empathy in nursing literature is described as the ability to comprehend someone’s emotions, thoughts, and

situation, manifested by acknowledging their reactions during communication. It is common for patients and family members to respond with disappointment when receiving information about medical errors, which can erode their trust in the relationship with nurses. Empathetic communication is essential to mitigating negative emotions and preserving trust ²⁵. Nevertheless, in almost half of the videos analysed, nurses failed to express empathy clearly. For example, the statement “2 ml is just a little volume and does not impact the boy’s health” in the given scenario may be interpreted as an explanation or encouragement to convince the SP that the blood test is not as serious as it appears; however, it can conflict with the SP’s desire and give the impression that the nurse does not care about the patient. In other instances observed in the videos, nurses remained silent when the SP expressed anger, which can be perceived as acceptance or apathy, depending on the context ²⁴. Thus, failing to acknowledge a patient’s dissatisfaction or providing an unclear statement of nurses’ understanding of patient’s emotion can exacerbate negative emotions, leading to ineffective task completion.

In our study, questioning skills were rated at a poor level, particularly in the flexible use of closed and open-ended questions. These findings suggest that nurses may struggle to effectively steer conversations with patients. Rather than taking an active role in leading the conversation and using questions to gain a deeper understanding of the patient’s thoughts and emotions, nurses primarily focused on responding to the patient’s inquiries. This may also explain why the mean score for empathy in this study was not significant, as nurses must first ask relevant questions to explore

the patient’s thoughts and reactions when expressing the empathy.

Ensuring patients’ understanding of the information provided is a fundamental aspect of communication in healthcare. Although nurses explained information to patients, they frequently waited for the patient to ask questions before providing further clarification. This approach can be confusing for patients, as they may not know what questions to ask. In this study, nurses demonstrated proficiency in using language, but they did not assess whether the SPs fully comprehended the information. Similarly, another study using the same LCSAS scale found that the average score for the item “ensures understanding” was lower compared to other items ²⁶. These findings highlight the need for further emphasis on the skills of evaluating patients’ understanding in future communication training programs.

The significant variation in nurses’ statements regarding the reasons for errors indicates a lack of an official policy regarding truth disclosure. In almost half of the videos, nurses avoided telling the whole truth or only provided partial information. This behaviour may be explained by the psychological pressures that nurses face, including the fear of losing the patient’s trust and being reprimanded by hospital management, which leads them to avoid directly mentioning the error ²⁷. However, this decision contradicts patients’ right to be fully informed about their health condition. Therefore, a policy that protects nurses from harms associated with disclosing errors should be developed, along with guidelines for error disclosure.

LIMITATIONS

The primary constraint of our research is the use of a simulation environment.

Although the information we gathered from this study is undoubtedly useful, it may be affected by partiality. The acknowledgment of being monitored in a simulated patient-room may have influenced the nurses' behaviour leading to more cautious or intentional actions during the simulation. It is suggested that the behaviour exhibited in the simulation may not accurately represent how the nurses would act in a real clinical environment, where factors such as stress, urgency, and unpredictability may contribute to different responses compared to a controlled simulation. Therefore, future research using simulation should focus on improving the fidelity of scenarios and settings.

CONCLUSIONS

The study obtained videotaped recordings of nurse-patient conversations in a simulation-based training program to examine nurses' communication skills when delivering unexpected information. Results showed that nurses had good non-verbal communication skills, but their questioning skills needed improvement. Greeting, respect, empathy, and information delivery were found to be acceptable skills, but skills such as using closed and open-ended questions and ensuring patients' understanding of information required improvement.

To improve nurses' communication skills when delivering unexpected information, educators should focus on enhancing questioning skills. Additionally, hospital leadership should emphasize the importance of disclosing truth to patients by creating policies related to protecting nurses during error disclosure and developing guidelines for revealing truth.

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Conflict of interest

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REFERENCES

1. Lotfi, M., et al.. Assessment of nurse-patient communication and patient satisfaction from nursing care. *Nursing Open*, 2019. 6(3): p. 1189-1196. doi: 10.1002/nop2.316.
2. Moslehpour, M., et al. The Effect of Physician Communication on Inpatient Satisfaction. *Healthcare*. 2022. MDPI. doi: 10.3390/healthcare10030463
3. Sattar, R., J. Johnson, and R. Lawton, The views and experiences of patients and health-care professionals on the disclosure of adverse events: A systematic review and qualitative meta-ethnographic synthesis. *Health Expectations*, 2020. 23(3): p. 571-583. doi: 10.1111/hex.13029.
4. Moskop, J.C., et al. Emergency physicians and disclosure of medical errors. *Annals of Emergency Medicine*, 2006. 48(5): p. 523-531. <https://doi.org/10.1016/j.annemergmed.2006.04.007>
5. Afolalu, O.O., S. Jordan, and U. Kyriacos, Medical error reporting among doctors and nurses in a Nigerian hospital: A cross-sectional survey. *Journal of Nursing Management*, 2021. 29(5): p. 1007-1015. doi: 10.1111/jonm.13238.
6. Dintzis, S.M., et al. Pathologists' perspectives on disclosing harmful pathology error. *Archives of Pathology and*

Laboratory Medicine, 2017. 141(6): p. 841-845. doi: 10.5858/arpa.2016-0136-OA.

7. Shannon McKinn, M., et al. Communication Between Health Workers and Ethnic Minorities in Vietnam. *Health Lit Res Pract.* 2017 Oct 10;1(4):e163-e172. doi: 10.3928/24748307-20170629-01.

8. Li, L., et al. Efficacy of communication training of community health workers on service delivery to people who inject drugs in Vietnam: A clustered randomized trial. *American Journal of Public Health*, 2018. 108(6): p. 791-798. <https://doi.org/10.2105/AJPH.2018.304350>

9. Tran, T.Q., et al. Nationwide survey of patients' and doctors' perceptions of what is needed in doctor-patient communication in a Southeast Asian context. *BMC Health Services Research*, 2020. 20(1): p. 1-11. <https://doi.org/10.1186/s12913-020-05803-4>.

10. Nguyen, L.T., P. Yates, and Y. Osborne. Palliative care knowledge, attitudes and perceived self-competence of nurses working in Vietnam. *International Journal of Palliative Nursing*, 2014. 20(9): p. 448-456. doi: 10.12968/ijpn.2014.20.9.448.

11. Tran, T.V., et al. Nurse-patient communication: A quality assessment in public hospital. *International Journal of Healthcare Management*, 2021. 14(4): p. 1127-1133. <https://doi.org/10.1080/20479700.2020.1752987>.

12. Harrison, R., et al. Responding to adverse patient safety events in Viet Nam. *BMC Health Services Research*, 2019. 19(1): p. 1-8. <https://doi.org/10.1186/s12913-019-4518-y>.

13. Gutiérrez-Puertas, L., et al. Educational interventions for nursing students to develop communication

skills with patients: a systematic review. *International Journal of Environmental Research and Public Health*, 2020. 17(7): p. 2241. doi: 10.3390/ijerph17072241.

14. Rammell, J., et al. Asynchronous unsupervised video-enhanced feedback as effective as direct expert feedback in the long-term retention of practical clinical skills: randomised trial comparing 2 feedback methods in a cohort of novice medical students. *Journal of Surgical Education*, 2018. 75(6): p. 1463-1470. doi: 10.1016/j.jsurg.2018.03.013.

15. Sarmasoglu, S., L. Dinç, and M. Elçin. Using standardized patients in nursing education: effects on students' psychomotor skill development. *Nurse Educator*, 2016. 41(2): p. E1-E5. doi: 10.1097/NNE.0000000000000188.

16. Alconero-Camarero, A.R., et al. Nursing students' satisfaction: a comparison between medium-and high-fidelity simulation training. *International Journal of Environmental Research and Public Health*, 2021. 18(2): p. 804. doi: 10.3390/ijerph18020804.

17. Chan, D.K., et al. How surgeons disclose medical errors to patients: a study using standardized patients. *Surgery*, 2005. 138(5): p. 851-858. doi: 10.1016/j.surg.2005.04.015.

18. Humphris, G. and S. Kaney. The Liverpool brief assessment system for communication skills in the making of doctors. *Advances in Health Sciences Education*, 2001. 6(1): p. 69-80. doi: 10.1023/a:1009879220949.

19. Humphris, G. and S. Kaney. Assessing the development of communication skills in undergraduate medical students. *Medical education*, 2001. 35(3): p. 225-231. doi: 10.1046/j.1365-2923.2001.00869.x.

20. Cömert, M., et al. Assessing communication skills of medical students in objective structured clinical examinations (OSCE)-a systematic review of rating scales. *PloS one*, 2016. 11(3): p. e0152717. doi: 10.1371/journal.pone.0152717.
21. Eskici, V. and N. Özer. Patients' Opinions of OR Nurses and Environments in the Postoperative Period. *Journal of PeriAnesthesia Nursing*, 2017. 32(4): p. 312-319. doi: 10.1016/j.jopan.2016.07.003.
22. Leslie, J.L. and W. Lonneman. Promoting trust in the registered nurse-patient relationship. *Home healthcare now*, 2016. 34(1): p. 38-42. doi: 10.1097/NHH.0000000000000322.
23. Altun, M. An underestimated tool: Body language in classroom during teaching and learning. *International Journal of Social Sciences & Educational Studies*, 2019. 6(1): p. 155-170. <https://doi.org/10.23918/ijsses.v6i1p155>.
24. Patel, D.S. Body Language: An Effective Communication Tool. *IUP Journal of English Studies*, 2014. 9(2).
25. Schoofs, L., et al. The role of empathy in crisis communication: Providing a deeper understanding of how organizational crises and crisis communication affect reputation. *Public Relations Review*, 2019. 45(5): p. 101851. <https://doi.org/10.1016/j.pubrev.2019.101851>
26. Qureshi, A.A. and T. Zehra,. Simulated patient's feedback to improve communication skills of clerkship students. *BMC Medical Education*, 2020. 20(1): p. 1-10. <https://doi.org/10.1186/s12909-019-1914-2>
27. Pfrimmer, D.M. Nursing's role in disclosure and apology. *The Journal of Continuing Education in Nursing*, 2010. 41(8): p. 342-343. doi: 10.3928/00220124-20100726-03.