Attitudes of Nursing Students Towards Learning Communication Skills

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Abstract

Introduction: Attitudes of nursing students towards learning nurse-patient communication skills have for long been a concern of lecturers, planners and policy-makers. The objectives of our study were to explore the attitudes of nursing students towards learning communication skills.

Methodology and methods: The study used a quantitative non-experimental survey. Nursing students’ attitudes were assessed using the Communication Skills Attitudes Scale (CSAS), which is comprised two scales measuring positive and negative attitudes. The reliability coefficient for two subscales was calculated using Cronbach’s α, with the positive attitude scale (PAS) found to be 0.855, and the negative attitude scale (NAS) 0.733.

Results: The mean score for PAS was 52.8, and the mean score for NAS was 32.7. There were no statistically significant differences identified when examining the positive attitude scale results and previous education (t = 1.434; p = 0.155) or mode of study (t = 1.566; p = 0.120), but we found statistically significant differences (F = 10.950; p < 0.001) according to the year of the study. Principal component analysis identified three factors, which explained 74% of the variance in the results.

Conclusion: CSAS measures may be helpful for monitoring the effect of different teaching strategies on students’ attitudes about communication skills during nursing education. It is recommended that communication skills training programmes are designed and incorporated into all nursing curriculum.

Keywords: education, communication skills, attitudes, students, nursing
1. Introduction

Nursing is not simply the ability to successfully carry out a series of routine tasks. Instead, nursing is a holistic practice, including physical, psychological, social, environmental and political features of an illness and its impact on patients and their families. Effective communication has long been recognised as the cornerstone of high quality care in nursing as the work of healthcare is largely one of interactions and relationships [1, 2].

Communication is often taken for granted as it is a part of everyday life, yet communication, in particular competency in communication, is central to nursing. This chapter will first explore communication as a necessity in nursing. It will then consider teaching of communication skills in undergraduate healthcare programmes, exploring factors that influence this teaching. The research question will then be outlined and the research methodology described. The results of the study will then be presented. Finally, the results of the study will be compared to the key literature within the area of nursing students’ attitudes towards learning communication skills.

2. Explaining communication

Communication is the transfer of information between or among people. It is not only based on an innate ability that varies from person to person, but also on the necessary training and experience that is acquired over the course of one’s career.

Communication skills that have been identified as required for nursing include the following:

- verbal skills;
- non-verbal skills including awareness of body language to enable reading and interpretation of physical and emotional signs, for example, mirroring, interpreting and using non-verbal cues or the paralinguistic elements of speech;
- active listening skills demonstrating that the true listening is occurring with assimilation of information;
- voice management skills including pitch and intonation to establish and maintain rapport;
- cultural awareness including impact of the nurses own cultural background cultural sensitivity;
- written communication in practice includes clarity, coherence, knowledge of accepted medical terminology, abbreviations and acronyms.

Bramhall [3] highlights the common barriers to effective communication for the patient and nurse. Patient barriers include environmental factors such as noise, lack of privacy and lack of control over who is present; fear and anxiety; and other barriers such as an inability to articulate feelings. Nurse barriers include environmental items such as limited time, staff shortages
and high workload; fear and anxiety related to causing the patient to be distressed by talking or responding to questions; and other barriers such as a lack of skills or strategies for coping with difficult emotions or queries.

3. Necessity for communication skills in nursing

The need for nurses to possess and make use of a wide range of communication skills has never been greater. Communication occurs continuously between the nurse and the patient, the patient’s family, the nurse’s co-workers and management. Nurses are increasingly working within multidisciplinary teams, furthering the need for advanced communication and interaction skills [4, 5].

The communication undertaken depends on the context and roles being played. Communication could include giving information, breaking news, asking or answering questions, reassuring, calming or motivating. The list is infinite, and each communication activity demands particular skills and strategies from the nurse. However, there is one underlying requirement for all communication, namely conveying the message that we value the patient as an individual who deserves to be treated with dignity and respect and good communication enables nurses to build therapeutic relationships with patients.

Communication in nursing can be a complicated process, and the possibility of sending or receiving incorrect messages frequently exists. In situations where there is poor communication, important information may not be conveyed. In the healthcare setting, poor communication can have disastrous consequences when ineffective. As many as 440,000 people die each year from preventable medical errors, representing the third leading cause of death in the United States on the list from the Centres for Disease Control [6]. Of these deaths, the Joint Commission estimated that 80% involved miscommunication.

Improving communication has been shown to be effective in reducing medical error rates. The study of Starmer et al. [7] undertaken by in the United States and Canada where medical error rates in nine children’s hospitals decreased by 23% after a handoff programme was begun to enhance and standardise communication is considered.

Similarly, improving communication also increased recovery rates, increased the sense of safety and protection and improved the levels of patient satisfaction and treatment adherence [8]. Poor communication has been identified as a cause of delay and poor team performance in the care of critically ill patients [9, 10].

It is essential therefore that nurses know the key components of the communication process, how to improve on skills and the potential challenges to communication that exist.

3.1. Teaching communication skills

It has long been recognised that communication is a clinical skill and like all other clinical skills should be formally taught [11]. There is evidence that communication skills training
can improve patient-centred communication, enhance empathy and provide reassurance and assist discussion of psychosocial needs [12]. Colliver et al. [13] proposed that “clinical competence and interpersonal and communication skills are related” (p. 273). They suggest that generic communication skills underlie the ability to carry out more advanced clinical skills effectively and that the confidence gained from practicing clinical skills then helps in the development of communication skills. This suggestion of a bidirectional relationship highlights the need for healthcare professional educators to ensure that education targets both specialised and generic facets of skill development.

Teaching communication skills can be undertaken in a range of methods. It has been identified through research studies that communication skills training programmes are effective if they are learner-centred, practice-oriented and have a duration of at least one day [14]. Role-play, feedback and small group discussions are effective training strategies. It is recommended that oral presentations, modelling and written information should be used as supportive strategies for this learning. It is also very important that students practise the skills they are taught. Chant et al. [15] provided an overview of education for nurses and other healthcare professionals and demonstrated the positive effects of simulated patients and experiential strategies, such as role-play and objective structured assessments.

Such a finding is confirmed by a study among nursing students undertaken by Zavertnik et al. [16] where communication skills were taught to nursing students using trained actors to portray standardised family members in a clinical learning laboratory setting. The teaching strategy was evaluated using a two-group post-test design. In addition to standard education, the intervention group received training on a communication framework and a 1-h practice session with the actor. Four domains of communication—introduction, gathering of information, imparting information and clarifying goals and expectations—were evaluated in the control and intervention groups. The intervention group performed better than the control group in all four tested domains related to communication skills. The difference with regard to the domain of gathering information was statistically significant (p = 0.0257). Such a study confirms that communication skills can improve and the teaching strategies used are important in determining outcomes.

Kruijver et al. [17] examined studies on communication training programmes for nurses (n = 14). Overall, they found limited impacts on nurses’ skills, nurses’ behaviours or patient outcomes. They reported that most studies had weak designs and called for experimental designs in future studies. Doyle et al. [18] in 2011 asserted that most existing studies evaluated the communication skills training for medical doctors and that more studies are needed and evaluated the effectiveness of communications training for nurses and other types of clinicians.

4. Factors impacting on learning communications skills

However, even with full consideration of teaching and assessment strategies, students may not recognise the teaching and learning of communication skills as an important part of academic
education and practice. They may not perceive a need to improve their own skills in this area; instead, they may choose to focus on practical technical skills and fail to realise the true value of learning communication skills.

The attitude of the student is pivotal, and nurse educators need to know to be aware of the possible impacts of the students’ attitude towards learning communication skills on the learning which occurs. Attitudes involve the creation of evaluations to which good or bad qualities of a topic/organisation or person are attached. Ajzen [19] as one of the leading attitude scientists states that an “attitude represents a summary evaluation of a psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant, and likable-dislikeable” (p. 27). Therefore, attitudes facilitate the adaption of an individual to an environment and drive behaviour [20]. The assessment of attitudes towards patient-oriented care has its legitimation, as they refer to beliefs that are relatively stable over time [21].

Research has been undertaken previously on healthcare professionals’ attitudes towards learning communication skills. It seems initially that this research focused on medical student education but has moved to consideration of attitudes in many healthcare professional disciplines.

Several studies have examined attitudinal scores before and after a communication skills training [22–26]. Research using the CSAS shows different patterns of attitude development during medical education, showing decreased [27–29] to increased scores [30]. Anvik and colleagues [31] found stable cognitive attitudes in contrast to decreasing affective attitudes. Furthermore, attitudes towards communication skills appear to be less positive in students with higher levels of state anxiety [32].

Finding from Lumma-Sellenthin [33] and Molinuevo et al. [34] reproduced the gender effect known from earlier research [29, 35], wherein it was identified that female students were more positive towards communication skills training than their male peers. This was often explained by female students’ stronger openness towards information-giving, partnership-building and interest in psychosocial topics.

It seems that students’ positive attitudes towards learning communication skills are related to a caring patient orientation and to a good self-regulation of learning strategies [33]. However, a caring patient orientation did not depend on metacognitive abilities. Instead, it seems that the caring patient orientation was explained by a positive attitude towards communication skills learning, female gender, higher age and parents’ work outside the health sector [33].

The literature has highlighted the importance of communication skills for nursing students; therefore, the aim of this cross-sectional study was to explore the attitudes of nursing students towards learning communication skills. The objective of the study was to explore both the negative and positive attitudes of nursing students towards learning communication skills.
4.1. Methodology and methods

A descriptive cross-sectional survey design was used to ascertain the attitudes of nursing students towards learning communication skills in the identified sample. The demographic variables under assessment were as follows:

- Demographic variables;
- Positive and negative attitudes towards communication skills.

The research was carried out among nursing care students of the University of Maribor, Faculty of Health Sciences in September 2016. Questionnaires (n = 342) were distributed to all nursing students. There was a 42% response rate with 143 questionnaires returned. The sample included first years (n = 75, 53%), second years (n = 18, 13%) and third years (n = 49, 34%). Of the total sample, 128 (90%) were female and 14 (10%) were male. The majority (n = 126, 89%) were full-time students, and only 16 (11%) were part-time students. Regarding previous education, 106 (75%) had finished secondary nursing school before they start study in the university with 36 (25%) having attended other secondary schools.

4.2. Ethical approval

The study procedure was approved by the Ethics Committees of the School of Health Sciences, University of Maribor. Questionnaires were not coded with an identifier; therefore, anonymity and confidentiality were assured, and this information was included in the research consent form.

4.3. Data collection tool

Nursing students’ attitudes towards learning communication skills were assessed by the Nottingham Communication Skills Attitudes Scale (CSAS) questionnaire. The questionnaire contains the Interpersonal Communication Competence Scale [36] and the Communication Skills Attitude Scale (CSAS) [37]. This validated tool uses a five-point Likert scale (ranging from 1—strongly disagree to 5—strongly agree) of 13 positively (PAS) and 13 negatively (NAS) worded statements. The survey instrument uses both positive and negative statements that are intermingled throughout the questionnaire. Morris et al. [38] posits that students’ scores range from 13 to 65 for PAS and 13 to 65 for NAS. The scale was developed and tested in terms of validity and reliability by Korkut [39]. In the present study, the instrument was piloted and the reliability coefficient for two subscales of CSAS was calculated using Cronbach’s $\alpha$. Cronbach’s $\alpha$ for positive attitude scale (PAS) was found to be $\alpha = 0.855$, and for negative attitude scale (NAS), it was found to be $\alpha = 0.733$.

4.4. Procedure

Prior to the administration of the questionnaire, participants signed a consent form and were given the research information sheet. The online self-administered questionnaire CSAS was completed anonymously with first-, second- and third-year nursing students (n = 342) at the
commencement of the first semester, September 2016. A total of 143 students participated in this study, and the response rate was 42%. Data from the completed questionnaires were analysed.

4.5. Data analysis

All scores were imported into an industry-standard software package—Statistical Package for the Social Sciences (SPSS—version 24) and statistically analysed. Descriptive statistics and inferential statistics were used to analyse the data. Demographic variables were compared using chi-squared tests. Cronbach’s α was used to test the reliability coefficient for two subscales of CSAS. Statistical significance was tested using a 5% margin of error. One-way analysis of variation (ANOVA) was used to discover the differences between selected groups. A p-value of <0.05 was statistically significant.

5. Results

The mean score for PAS was 52.8 (SD = 6.7) out of 65, ranging from 30 to 65, and the mean score for NAS was 32.7 out of 65, ranging from 21 to 65.

Using independent sample t-tests, it can be seen in Table 1 that there were no significant differences identified between males and females in either the PAS or the NAS; however, it seemed that the female students had more positive (mean score 53.0) and less negative (mean score 32.4) attitudes towards learning communication skills compared to the male students (PAS mean score 51.0; NAS mean score 35.5).

Likewise, it was identified that while there were no statistically significant differences between full- and part-time students (Table 2), the part-time students had more positive and also more negative attitudes towards learning communication skills compared to the group of full-time students.

It was also identified that there are no statistically significant differences between students who finished nursing or other secondary schools (Table 3). The group of students from other secondary schools had more positive and less negative attitudes towards learning communication skills compared to the group of students finished nursing secondary school.

| Subscales | Male | Female | t    | p   |
|-----------|------|--------|------|-----|
|           | Mean | SD     | Mean | SD  |     |
| PAS       | 51.0 | 5.9    | 53.0 | 6.2 | 1.125| 0.279|
| NAS       | 35.5 | 7.1    | 32.4 | 6.8 | 1.700| 0.091|

Table 1. Comparison of attitudes towards learning communication skills between male and female students.
There was a statistically significant difference found between the students from different programme years on the PAS (Table 4). Second- and third-year students had more positive and less negative attitudes towards learning communication skills compared to the first-year students.

The CSAS tool is made up of 26 questions. For the evaluation and examination of the screen chart, three factors (and all including statements) were taken into the consideration. The value of Kaiser-Meyer-Olkin test statistics was 0.860, and Bartlett’s test of sphericity was significant (p < 0.001), both confirming the appropriateness of factor analysis.

Three factors (Table 5) extracted from the principal component analysis explained 74% of communication skills attitudes identified. The first, second and third factors explained 55,13 and 6%, respectively, of the entire variance. The first factor was the importance of communication skills for nursing and quality of patient care and included 12 ranked items. The second factor was the importance of learning of communication skills and included 10 ranked items. The final factor was the problem of non-acceptance of the value of learning communication skills and included 4 ranked items.

| Subscales | Full time | | Part time | | t | p |
|-----------|-----------|------|-----------|------|---|---|
|           | Mean | SD | Mean | SD |   |   |
| PAS       | 52.5 | 7.4 | 55.5 | 7.4 | 1.566 | 0.120 |
| NAS       | 32.4 | 5.8 | 35.0 | 9.4 | 1.540 | 0.126 |

Table 2. Comparison of attitudes towards learning communication skills between full-time and part-time students.

| Subscales | Nursing school | | Other school | | t | p |
|-----------|---------------|------|-------------|------|---|---|
|           | Mean | SD | Mean | SD |   |   |
| PAS       | 52.5 | 7.4 | 54.0 | 4.2 | 1.434 | 0.155 |
| NAS       | 33.0 | 6.7 | 32.0 | 4.9 | 0.799 | 0.426 |

Table 3. Comparison of attitudes towards learning communication skills according to finished nursing and other secondary school.

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| Subscales | First year | | Second year | | Third year | | F | p |
|-----------|------------|------|-------------|------|------------|------|---|---|
|           | Mean | SD | Mean | SD | Mean | SD |   |   |
| PAS       | 50.4 | 6.9 | 56.3 | 5.5 | 55.2 | 5.3 | 10.950 | <0.001 |
| NAS       | 33.0 | 5.5 | 32.5 | 7.6 | 32.4 | 6.9 | 0.165 | 0.848 |

Table 4. Comparison of attitudes towards learning communication skills between students according to the study year.
| Communication skills                                                                 | IFN  | LCS | PCS |
|-------------------------------------------------------------------------------------|------|-----|-----|
| Learning communication skills has helped me or will help me facilitate team-working skills | 0.858|     |     |
| Learning communication skills has improved my ability to communicate with patients   | 0.757|     |     |
| Developing my communication skills is just as important as developing my knowledge of nursing | 0.736|     |     |
| Learning communication skills has helped or will help me recognise patients’ rights regarding confidentiality and informed consent | 0.696|     |     |
| Learning communication skills will help me respect patients                          | 0.671|     |     |
| Learning communication skills has helped me or will help me to respect my colleagues | 0.662|     |     |
| Learning communication skills is important because my ability to communicate is a lifelong skill | 0.655|     |     |
| When applying for nursing, I thought it was a really good idea to learn communication skills | 0.641|     |     |
| I find it difficult to trust information about communication skills given to me by non-clinical lecturers | 0.636|     |     |
| In order to be a good nurse, I must have good communication skills                  | 0.538|     |     |
| Learning communication skills is applicable to learning nursing                      | 0.517|     |     |
| Nobody is going to fail their nursing programme for having poor communication skills | 0.455|     |     |
| Learning communication skills is interesting                                         |     | 0.771|     |
| I think it is really useful learning communication skills in the nursing programme   |     | 0.757|     |
| I find it difficult to take communication skills learning seriously                  |     | 0.671|     |
| Communication skills teaching would have a better image if it sounded more like a science subject |     | 0.641|     |
| Learning communication skills is fun                                                |     | 0.539|     |
### Table 5. Rotated factor matrix for three factors of learning communication skills.

| Communication skills                                                                 | IFN  | LCS  | PCS  |
|-------------------------------------------------------------------------------------|------|------|------|
| I have not got time to learn communication skills                                    | –    | 0.514| –    |
| Communication skills teaching states the obvious and then complicates it              | –    | 0.512| –    |
| Learning communication skills is too easy                                            | –    | 0.512| –    |
| I find it hard to admit to having some problems with my communication skills          | –    | 0.492| –    |
| I cannot be bothered to turn up to sessions on communication skills                  | –    | 0.469| –    |
| I cannot see the point in learning communication skills                               | –    | –    | 0.762|
| I do not need good communication skills to be a nurse                                 | –    | –    | 0.591|
| Communication skills learning should be left to psychology students, not nursing students | –    | –    | 0.579|
| My ability to pass examinations will get me through my nursing programme rather than my ability to communicate | –    | –    | 0.512|

Note: IFN = importance for nursing and quality of patients’ care; LCS = learning communication skills; PCS = problems and unacceptance of learning communication skills.

### 6. Discussion

While it is accepted that communication skills are vital for nursing practice and that these can be learned and developed through skills training, the attitude of the student towards learning these skills is a key factor. This study has examined nursing students’ attitude towards communication skills. In the research, we found that positive attitude for communication skills is in line with previous research [40–43]. In the current study, it was identified that positive attitudes towards communication skills increased slightly from the first to the second year of the nursing programme and in the last year of the programme, they decreased slightly. However, it was also identified that the negative attitude towards communication skills also decreased slightly from the first to the last year of nursing programme. An increased positive attitude towards learning communication skills depending on year of programme study was also found in previous studies [41, 42, 44]; however, Al-Bizrah et al. [40] also found that in the last year of a programme, the average scores of positive attitudes for communication skills decreased when compared with previous years of a programme.

One of main findings of our results was that communication skills were recognised as a very important part of nursing practice by the students.
In line with Neupane et al. [42], it was also identified in the current study that female students had more positive and less negative attitudes towards learning communication skills compared to male students; however, these differences were not statistically significant. This could suggest that the gender differences between the students towards communication skills identified in previous studies as being statistically significantly different is becoming less pronounced as gender roles are changing in society. Alternatively, it could be a culture-specific issue. It is certainly worthy of future exploration.

Effective communication skills for nurses are important components for today’s nursing education. Furthermore, effective communication skills training programmes point to the importance of students taking an active role in the learning process [45].

A few methodological limitations require mention. The findings are based on a descriptive cross-sectional design and consequently purport to report only causal processes underlying the associations between a communication skills training and positive and negative attitudes towards a communication training in curricula. Future studies could address the idea of using a seven- or nine-point Likert scale that would yield more sensitive data [38]. Moreover, the small sample size limits the researchers’ ability to make causal inferences and therefore generalisation. Future studies will require a larger more representative sample of Slovenian student nurses. The non-random selection of participants meant an available sample had to be used and the sample (n = 143) that impacted on the procedures needed to show statistically significant differences between cohorts [46]. Ultimately, measurement of communication skills, using the CSAS, at only one point [46] in time may have underestimated the effect of communication skills training in the identified cohort and consequently further limits causal inferences in this very important area of research [46].

Overall, the aim of the study undertaken was to explore the attitudes of nursing students towards learning communication skills. It was identified that the mean values for positive and negative attitudes are comparable with other research studies [40–43].

Communication skills training will remain an important component of nurse education. In line with Steckler [43], it is contended that academia needs to continue to develop and implement the use of effective communication skills to nursing students to exemplify the need for these critical skills and the importance of their part in nursing education for practice.

7. Conclusions

This study can affect the increase of interest in the specific communication skills of students and develop the departmental testing of specific communication skills of nursing students. The results of the study can be used to better prepare teachers and their students for increasing effective communication and support the recommendation that greater importance be placed on communication and the provision of more opportunities for students to learn these skills.
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References

[1] Kourkouta L, Papathanasiou IV. Communication in nursing practice. Materia Socio-medica. 2014;26(1):65–67. doi:10.5455/msm.2014.26.65-67

[2] Berwick DM. Escape Fire: Lessons for the Future of Health Care. New York: The Commonwealth Fund; 2002. 58 p.

[3] Bramhall E. Effective communication skills in nursing. Nursing Standard. 2014;24(14):53–59.

[4] King S, Carbonaro M, Greidanus E, Ansell D, Foisy-Doll C, Magus S. Dynamic and routine interprofessional simulations: expanding the use of simulation to enhance interprofessional competencies and operation of attitudes. Journal of Allied Health. 2014;43(3):169–175.

[5] Johnson P, Wistow G, Schulz R, Hardy B. Interagency and interprofessional collaboration in community care: the interdependence of structures and values. Medical Journal of Interprofessional Care. 2003;17(1):69–83. doi:10.1080/1356182021000044166

[6] James JT. A new, evidence-based estimate of patient harms associated with hospital care. Journal of Patient Safety. 2013;9(3):122–128. doi:10.1097/PTS.0b013e3182948a69

[7] Starmer AJ, Spector ND, Srivastava R, West DC, Rosenbluth G, Allen AD et al. Changes in medical errors after implementation of a handoff program study. The New England Journal of Medicine. 2014;371(19):1803–1812. doi:10.1056/NEJMs1405556

[8] Wright R. Effective communication skills for the ‘Caring’ nurse [Internet]. 2012. Available from: http://www.pearsonlongman.com/tertiaryplace/pdf/ros_wright_effective_comm_skills_for_the_caring_nurse_aug2012.pdf [Accessed: 2016-12-15].

[9] Peebles E, Subbe CP, Hughes P, Gemmell L. Timing and teamwork—an observational pilot study of patients referred to a rapid response team with the aim of identifying
factors amenable to re-design of a rapid response system. Resuscitation. 2012;83(6):782–787. doi:10.1016/j.resuscitation.2011.12.019

[10] Andersen PO, Jensen MK, Lippert A, Østergaard DP. Identifying non-technical skills and barriers for improvement of teamwork in cardiac arrest teams. Resuscitation. 2010;81(6):695–702. doi:10.1016/j.resuscitation.2010.01.024

[11] Duffy FD. Dialogue: the core clinical skill. Annals of Internal Medicine. 1998;128(2):139–141.

[12] Sheldon LK. An evidence-based communication skills training programme for oncology nurses improves patient-centred communication, enhancing empathy, reassurance and discussion of psychosocial needs. Evidence-Based Nursing. 2011;14(3):87–88. doi:10.1136/ebn1156

[13] Colliver JA, Swartz MH, Robbs RS, Cohen DS. Relationship between clinical competence and interpersonal and communication skills in standardized-patient assessment. Academic Medicine. 1999;74(3):271–274.

[14] Berkhof M, van Rijssen HJ, Schellart AJ, Anema JR, van der Beek AJ. Effective training strategies for teaching communication skills to physicians: an overview of systematic reviews. Patient Education and Counseling. 2011;84(2):152–162. doi:10.1016/j.pec.2010.06.010

[15] Chant S, Jenkinson T, Randle J, Russell G, Webb C. Communication skills training in healthcare: a review of the literature. Nurse Education Today. 2002;22(3):189–202.

[16] Zavertnik JE, Huff TA, Munro CL. Innovative approach to teaching communication skills to nursing students. The Journal of Nursing Education. 2010;49(2):65–71. doi:10.3928/01484834-20090918-06

[17] Kruijver IP, Kerkstra A, Francke AL, Bensing JM, van de Wiel HB. Evaluation of communication training programs in nursing care: a review of the literature. Patient Counselling and Health Education. 2000;39(1):129–145.

[18] Doyle D, Copeland HL, Bush D, Stein L, Thompson S. A course for nurses to handle difficult communication situations. A randomized controlled trial of impact on self-efficacy and performance. Patient Education and Counseling. 2011;82(1):100–109. doi:10.1016/j.pec.2010.02.013

[19] Ajzen I. Nature and operation of attitudes. Annual Review Psychology. 2001;52:27–58. doi:10.1146/annurev.psych.52.1.27

[20] Eagly AH, Chaiken S. The psychology of attitudes. Fort Worth: Harcourt, Brace, & Janovich; 1993. 794 p.

[21] Wahlqvist M, Gunnarsson RK, Dahlgren G, Nordgren S. Patient-centred attitudes among medical students: gender and work experience in health care make a difference. Medical Teacher. 2010;32(4):e191–e198. doi:10.3109/01421591003657451

[22] Rees C, Sheard C. Evaluating first-year medical students’ attitudes to learning communication skills before and after a communication skills course. Medical Teacher. 2003;25(3):302–307. doi:10.1080/0142159031000100409
[23] Harlak H, Gemalmaz A, Gurel FS, Dereboy C, Ertekin K. Communication skills training: effects on attitudes toward communication skills and empathic tendency. Education for Health (Abingdon, England). 2008;21(2):62.

[24] Bombeke K, Van Roosbroeck S, De Winter B, Debaene L, Schol S, Van Hal G et al. Medical students trained in communication skills show a decline in patient-centred attitudes: an observational study comparing two cohorts during clinical clerkships. Patient Education and Counseling. 2011;84(3):310–318. doi:10.1016/j.pec.2011.03.007

[25] Tiuraniemi J, Läärä R, Kyrö T, Lindeman S. Medical and psychology students’ self-assessed communication skills: a pilot study. Patient Education and Counseling. 2011;83(2):152–157. doi:10.1016/j.pec.2010.05.013

[26] Koponen J, Pyörälä E, Isotalus P. Comparing three experiential learning methods and their effect on medical students’ attitudes to learning communication skills. Medical Teacher. 2012;34(3):e198–e207. doi:10.3109/0142159X.2012.642828

[27] Harlak H, Dereboy C, Gemalmaz A. Validation of a Turkish translation of the Communication Skills Attitude Scale with Turkish medical students. Education for Health (Abingdon, England). 2008;21(1):55.

[28] Fazel I, Aghamolaei T. Attitudes toward learning communication skills among medical students of a university in Iran. Acta Medica Iranica. 2011;49(9):625–629.

[29] Cleland J, Foster K, Moffat M. Undergraduate students’ attitudes to communication skills learning differ depending on year of study and gender. Medical Teaching. 2005;27(3):246–251. doi:10.1080/0142159040029541

[30] Khashab SS. Attitudes of Alexandria medical students towards communication skills learning. The Journal of the Egyptian Public Health Association. 2006;81(5–6):355–372.

[31] Anvik T, Grimstad H, Baerheim A, Bernt Fasmer O, Gude T, Hjortdahl P et al. Medical students’ cognitive and affective attitudes towards learning and using communication skills—a nationwide cross-sectional study. Medical Teaching. 2008;30(3):272–279. doi:10.1080/01421590701784356

[32] Loureiro EM, Severo M, Bettencourt P, Ferreira MA. Attitudes and anxiety levels of medical students towards the acquisition of competencies in communication skills. Patient Counselling and Health Education. 2011;85(3):e272–e277. doi:10.1016/j.prec.2011.07.005

[33] Lumma-Sellenthin A. Students’ attitudes towards learning communication skills: correlating attitudes, demographic and metacognitive variables. International Journal of Medical Education. 2012;3:201–208. doi:10.5116/ijme.5066.cef9

[34] Molinuevo B, Aradilla-Herrero A, Nolla M, Clèries X. A comparison of medical students’, residents’ and tutors’ attitudes towards communication skills learning. Education for Health (Abingdon, England). 2016;29(2):132–135. doi:10.4103/1357-6283.188755

[35] Rees C, Sheard C. The relationship between medical students’ attitudes towards communication skills learning and their demographic and education-related characteristics. Medical Education. 2002;36(11):1017–1027.
[36] Rubin RB, Martin MM. Development of a measure of interpersonal communication competence. Communication Research Reports. 1994;11(1):33–44. doi:10.1080/08824099409359938

[37] Rees C, Sheard C, Davies S. The development of a scale to measure medical students’ attitudes towards communication skills learning: the Communication Skills Attitude Scale (CSAS). Medical Education. 2002;36(2):141–147.

[38] Morris M, Donohoe G, Hennessy M. The fall and rise of medical students’ attitudes to communication skills learning in Ireland: a longitudinal approach study. British Journal of Education, Society and Behavioural Science. 2013;3(4):467–477. doi:10.9734/BJESBS/2013/4075

[39] Korkut F. İletişim becerileri eğitimi programının liselilerin iletişim becerilerini değerlendirmelerine etkisi [The impact of the communication skills training program on the communication skills of high school students]. 3P Dergisi. 2012;4(3):191–198.

[40] Al-Bizrah NA, Tarique NM, Arain, FR. Student attitude towards communication skills training among female medical students in Taif University. Sky Journal of Medicine and Medical Sciences. 2016;4(2):14–19.

[41] Ihmeideh FM, Al-Omari AA, Al-Dababneh, KA. Attitudes toward communication skills among students’-Teachers’ in Jordanian Public Universities. Australian Journal of Teacher Education. 2010;35(4). doi:10.14221/ajte.2010v35n4.1

[42] Neupane MS, Neupane HC, Adhikari S, Aryal B. Attitude towards learning communication skills in medical students of Chitwan Medical College, Chitwan, Nepal. International Journal of Pharmaceutical and Biological Archives. 2012;3(5):1058–1061.

[43] Steckler R. Improving communication skills among nursing students: assessing the Comfort Curriculum as an intervention [thesis]. Lexington: University of Kentucky; 2012. 64 p. Available from: http://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1006&context=comm_etds

[44] Laurence B, Bertera EM, Feimster T, Hollander R, Stroman C. Adaptation of the Communication Skills Attitude Scale (CSAS) to dental students. Journal of Dental Education. 2012;76(12):1629–1638.

[45] Fallowfield L, Jenkins V, Farewell V, Saul J, Duffy A, Eves R. Efficacy of a cancer research UK communication skills training model for oncologists: a randomised controlled trial. The Lancet. 2002;359:650–656.

[46] Denny M, Wells J, Cunningham J. Assessing psychosocial work-related stress across five European countries: implications for workforce development. The Journal of Mental Health Training, Education and Practice. 2012; 6(2), 93–103.
