



Syddansk Universitet

Communication skills training increases self-efficacy of health care professionals

Nørgaard, Birgitte; Ammentorp, Jette; Kyvik, Kirsten Ohm; Kofoed, Poul-Erik

Published in:

Journal of Continuing Education in the Health Professions

DOI:

[10.1002/chp.21131](https://doi.org/10.1002/chp.21131)

Publication date:

2012

Citation for published version (APA):

Nørgaard, B., Ammentorp, J., Ohm Kyvik, K., & Kofoed, P-E. (2012). Communication skills training increases self-efficacy of health care professionals. *Journal of Continuing Education in the Health Professions*, 32(2), 90-97. DOI: 10.1002/chp.21131

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Communication Skills Training Increases Self-Efficacy of Health Care Professionals

BIRGITTE NØRGAARD, MSc, PhD; JETTE AMMENTORP, MSc, PhD; KIRSTEN OHM KYVIK, MD, PhD, MPM; POUL-ERIK KOFOED, MD, DR MED

Introduction: Despite the knowledge of good communication as a precondition for optimal care and treatment in health care, serious communication problems are still experienced by patients as well as by health care professionals. An orthopedic surgery department initiated a 3-day communication skills training course for all staff members expecting an increase in patient-centeredness in communication and more respectful intercollegial communication. The aim of this study was to investigate the impact of this training course on participants' self-efficacy with a focus on communication with both colleagues and patients.

Methods: The study was designed as an effectiveness study with the training course implemented in a real-world context. The staff members attended a 3-day training course in patient-centered communication and communication with colleagues. The effect of the training was evaluated by means of a questionnaire filled out before, immediately after, and 6 months after the course.

Results: Of the 181 participants, 177 answered the questionnaire before, 165 immediately after, and 150 six months after the course. The mean score for self-efficacy in communication with patients increased from 6.68 to 7.88 ($p < .001$) and in communication with colleagues from 6.85 to 7.84 ($p < .001$) immediately following the training course. The effect was still present 6 months after the course was completed.

Discussion: Although the study was conducted in a real-world setting with many competing demands, a communication course produced an increase in self-efficacy. This result was observed for doctors, nurses, nursing assistants, and medical secretaries.

Key Words: communication, communication skills training, self-efficacy, patient centered, intercollegial

Disclosures: The authors report none.

Dr. Nørgaard: Research Assistant, Department of Orthopaedic Surgery, Kolding Hospital, and Health Services Research Unit, Lillebaelt Hospital; *Dr. Ammentorp:* Assistant Professor, Research Manager, Health Services Research Unit, Lillebaelt Hospital, and Institute of Regional Health Services Research, University of Southern Denmark; *Ms. Kyvik:* Professor, Head of Institute, Institute of Regional Health Services Research, University of Southern Denmark, and Odense Patient Data Explorative Network (OPEN), Odense University Hospital; *Dr. Kofoed:* Assistant Professor, Research Manager, Health Services Research Unit, Lillebaelt Hospital, and Institute of Regional Health Services Research, University of Southern Denmark.

Correspondence: Birgitte Nørgaard, Department of Orthopaedic Surgery, Kolding Hospital, Skovvangen 2–8, 6000 Kolding, Denmark; e-mail: birgitte.noergaard@slb.regionssyddanmark.dk.

© 2012 The Alliance for Continuing Education in the Health Professions, the Society for Academic Continuing Medical Education, and the Council on Continuing Medical Education, Association for Hospital Medical Education.

• Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/chp.21131

Introduction

In recent years communication has become a core topic in health care. The importance of good communication as a precondition for optimal care and treatment and for good intercollegial cooperation is now well-accepted.¹

Despite this focus on good communication, serious communication problems persist between health care providers and patients as well as in intercollegial interactions among providers. Communication problems reported by patients include lack of or incorrect information, lack of care, health care professionals' inability to meet patients' needs and expectations, and lack of respect and involvement.^{2–6} Clinicians often report a lack of self-confidence in communicating with patients, a problem that may lead to avoidance of communication with patients and inadequate information about the patients' concerns.^{7,8}

Ineffective intercollegial communication (which we define as face-to-face sharing of information, meanings, and

feelings through the exchange of verbal and nonverbal messages⁹ between health care professionals within their profession and across professions¹) has been shown to be a common causal factor underlying many adverse events and medical errors¹⁰ and delays in patient care.¹¹ The evidence also suggests that poor intercollegial communication takes a toll on health care staff, leading to conflicts, role stress, lack of interprofessional understanding, and diminished inter-professional interaction.^{1,12}

Positive relationships among clinicians are facilitated when clinicians listen to, respect, and appreciate their colleagues. The same factors (listening, respect, and appreciation) foster positive relationships with patients.¹³ It has been shown that respectful communication and good relationships among colleagues contribute not only to gains in quality of patient care and provider outcomes,¹⁴ but also to increased patient satisfaction.¹⁵

Knowing that communication with patients and colleagues could be a potential source of complaints and conflicts, the head of the Department of Orthopaedic Surgery at the Kolding Hospital in Denmark commissioned a 3-day communication skills training course for all staff members. It was expected that the training would result in increased self-efficacy followed by increased patient-centeredness in communication and more respectful intercollegial communication.

We conducted a study to investigate the impact of this training course on (1) participants' self-efficacy in communication with both colleagues and patients and (2) patients' assessment of the quality of care. In this article we report on the self-efficacy outcomes. Patients' assessment of changes in the health care professionals' communication following the course has been reported in a separate paper.¹⁶

Methods

The study was designed as an effectiveness study investigating the impact of an in-house training course implemented in 2008 and 2009 in a real-world context and adapted to local conditions. Although efficacy studies have found that communication training has a positive effect, it is uncertain whether the same effect can be obtained when implementing a communication strategy in an entire department.

Target Audience

The training course was made compulsory for all staff members employed more than 6 months by the department in order to ensure a consistent approach to communicating with patients in the department. The compulsory status of the course was a strategy for indicating management's strong support, which has been shown to be a vital moderating factor for

1. Initiating the session
2. Gathering information
3. Explanation and planning
4. Closing the session

FIGURE 1. The structure of an effective interview.

transferring training into clinical practice.¹⁷ It was also a plan for ensuring participation of all professions.

The target audience was the 191 members of the department who met the 6-month requirement. Of the 191 members, 9 were excluded due to their participation in the research process (organizing and teaching), and one refused to participate. This left a total of 181 participants: 21 doctors, 102 nurses, 30 nursing assistants, 17 secretaries, and 11 other staff members, including service staff and managers.

Intervention

The specific goal of the training was to enhance the participants' communication skills in terms of accuracy, efficiency, and supportiveness by giving them some simple yet useful communication principles that were immediately applicable to their daily work in the department.¹⁸ The course was based on the communication process skills of the Calgary–Cambridge Observation Guide, which provides a structure for an effective patient interview.¹⁹ The structure is shown in FIGURE 1. Another main constituent of the training course was development of a shared agenda taking both the patients' and the health care professionals' needs into account. This approach means that the health care professional does not tell patients or colleagues what they are going to talk about, but rather invites them to jointly develop an agreed-upon plan.¹⁸ The training also included several communication principles, such as attentive listening, the use of silence, and summarizing.^{18,19} The principles are shown in FIGURE 2. The course was based on the British psychiatrist Peter Maguire's work on medical communication, which is a skill-based approach making use of videotaped scenarios, role-plays, and simulated communication sequences.²⁰ These teaching strategies were incorporated into the training course.

Because the field of communication in orthopedics is very sparsely investigated and described, a focus group was conducted to determine if a local adaptation of McGuire's training model was needed. The focus group interview was led by an experienced research assistant and carried out with 8 participants, representing all professions and wards in the department. The participants were asked to describe what they perceived as important communication skills and core communication tasks with respect to both patients and colleagues. In addition, they were asked to describe the characteristics of successful and difficult communication, also with respect to

- Shared agenda
- Nonverbal communication
- Attentive listening
- Empathy
- Pausing
- Psychosocial aspects
- Hints
- Resuming
- Screening

FIGURE 2. Communication principles for accurate, efficient, and supportive communication.

both patients and colleagues. The focus group interview identified important communication skills such as showing obligingness and empathy, and communication dilemmas such as how to deal with angry and worried patients, disagreements with colleagues, and intercollegial communication in times of heavy workload. The focus group results were incorporated into both the teaching materials and the questionnaire assessing the intervention.

The training course comprised 24 hours spread over 3 days. During the first 2 days, the structure and principles for patient-centered communication and communication with colleagues were presented. On the first day, the elements of an effective interview were presented (initiating the session, gathering information, explanation and planning, closing the session) and role-plays were used to provide practice applying the principles. On the second day, the training focused on role-plays addressing psychological reactions from patients, passing on bad news, problematic discussions with colleagues, and communication with relatives.

Six weeks later, a third day of training was offered. The six-week interval gave the participants an opportunity to practice their new communication principles. At the end of the second day, the participants had to choose a specific topic to practice: a communication principle (eg, pausing, empathy, hints) or a part of the structure (eg, initiating or closing the session). Participants were encouraged to choose a topic that was relevant to their communicative behavior. In the 6-week interval, they were asked to videotape an authentic communication situation with a patient or a colleague. Before the follow-up day, all participants were expected to review their recording with a colleague in order to check for both the interview structure and use of the communication principles, with a specific focus on the topic chosen by the individuals.

The recordings provided the focus for plenary discussions, supervision, and personal feedback sessions during the follow-up session. A few professionals came to the follow-up day without a video recording. In these cases, the professionals were transferred to another follow-up day and given the needed support and supervision so that they could make a video recording and contribute to the plenary discussions.

The training sessions were led by 8 in-house trainers, who were recruited to represent each profession (2 doctors, 1 medical secretary, and 5 nurses) and also represent the 5 wards in the department (2 inpatient wards, 1 outpatient ward, an operation theater, and a casualty ward). Furthermore, the trainers were selected because they were believed to be communicatively competent, committed, and positive toward the project. The trainers received 40 hours of training from a certified trainer on communication with patients and colleagues in an extended version of the training course over a period of 5 days. Afterwards, they received an additional 5 days of training in teaching and supervising their colleagues. Each session was led by 2 in-house trainers.

Outcome Measurement

The concept of self-efficacy is based on the theories of the Canadian psychologist Albert Bandura and refers to a person's confidence in their ability to perform in a specific situation or framework.^{21–23} Differences in self-efficacy have been shown to be associated with differences in skill level and performance.^{21,24} Self-efficacy is frequently used in assessing organizational behavior²⁵ and has proved to be an efficient and reliable method for assessing the impact of communication skills training for professionals.^{26,27}

Data on self-efficacy were collected by means of a questionnaire developed for use in the context of communication with patients. The questionnaire, based on self-efficacy theory and developed and validated by Parle et al,²⁸ had been previously translated into Danish in a 2-stage process and used for doctors and nurses in the Department of Paediatrics, Kolding Hospital.²⁴ The questionnaire was further adapted for the present study and expanded with questions about intercollegial communication based on the above-mentioned focus group interview.

The questionnaire included 8 questions eliciting the health care professionals' perceived self-efficacy in communication with patients and 11 questions concerning communication with colleagues (see FIGURES 4a and 4b). Respondents answered the questions using a 10-point scale from "not certain at all" (1) to "quite certain" (10). Each participant was asked to fill in the questionnaire 3 times: before (T1), immediately after (T2), and 6 months after the course (T3). The questionnaires were anonymous but coded to allow paired analysis.

Statistical Analyses

The measurement at T1 was used as baseline for comparisons with those made at T2 and T3. As increased scores in self-efficacy were expected after the training course, data were analyzed using paired *t*-tests of means at T1 and T2, and T1 and T3. A linear regression test was also done with the difference in the mean of mean scores between T1 and T2 and

between T1 and T3 as descriptive variables, with profession, gender, and age as categorical variables and adjusted for baseline. The participants were categorized into 4 age groups: 20–29 years, 30–39 years, 40–49 years, and 50+ years in order to check for age-related variations in the data as age has previously been shown to be an important factor when doctors have been trained postgraduation.^{26,29} A *p* value of .05 was chosen as the significance level.

Furthermore, data were tested for a ceiling effect (overrating). The highest possible score of 10 was received by 2 respondents at T1 and 2 at T3 (none at T2); of these, 3 were in the category for communication with patients and 1 for communication with colleagues. For all questions collapsed, no respondents had a mean score above 9.

All statistical analyses were done using Stata (StataCorp. Statistical Software: Release 11. College Station, TX: Stata Corporation, 2001).

Results

Participants

A total of 181 health care professionals were initially included in the study, 28 of whom were lost to the study due to resignations or illness, resulting in a total of 169 at T2 and 153 at T3. Response rates were 97.8% (177/181) at T1; for T2 and T3 they were 97.6% (165/169) and 98% (150/153), respectively. A total of 148 participants answered all 3 questionnaires, yielding an overall response rate of 148/153 (96.7%). Eighty-six percent of the respondents were female.

Self-Efficacy

At baseline, the doctors had the highest mean scores in communication with patients (7.54, SD 1.35), followed by nurses

(6.82, SD 1.36), nursing assistants (6.04, SD 1.74), and medical secretaries (5.35, SD 2.08). For efficacy in communication with colleagues the pattern differed, as the nursing assistants had the highest baseline (7.25, SD 1.39), followed by doctors (6.93, SD 1.10), nurses (6.82, SD 1.11), and medical secretaries (6.70, SD .91). Thereby, the doctors were the only profession having a lower (baseline) self-efficacy in communication with colleagues than in communication with patients; the nurses had identical baselines in communication with patients and colleagues; and the nursing assistants and the medical secretaries had a higher self-efficacy in communication with colleagues than in communication with patients.

At both T2 and T3 the pattern in communication with patients was similar, with the doctors having the highest baseline, followed by the nurses, the nursing assistants, and, finally, the medical secretaries with the lowest baseline. In communication with colleagues there were minor variations in T2 and T3, compared to T1. The mean score for self-efficacy in communication with patients increased from 6.68 to 7.88 ($p < .001$) and in communication with colleagues from 6.85 to 7.84 ($p < .001$) from T1 to T2. Furthermore, the doctors' increases in self-efficacy from T1 to T3 were nonsignificant both in communication with patients and with colleagues, whereas the corresponding results for the other 3 professions were significant.

These changes in the mean of mean scores of self-efficacy from T1 to T2 and from T1 to T3 are shown by profession in TABLES 1a and 1b, and the mean of mean scores are shown in FIGURES 3a and 3b.

TABLE 1a shows the change from before the course (T1) to immediately after the course (T2) and from T1 to six months after the course (T3) in mean of mean scores of self-efficacy in communication with patients.

TABLE 1a. Self-Efficacy in Communication With Patients

	Communication with patients									
	Change from T1 to T2					Change from T1 to T3				
	<i>n</i>	T1	T2	T1-T2	<i>p</i>	<i>n</i>	T1	T3	T1-T2	<i>p</i>
All staff	161	6.68	7.88	1.21	.001	147	6.66	7.78	1.12	.001
Doctors	21	7.54	8.25	0.72	.01	18	7.61	7.97	0.35	.43
Nurses	96	6.82	7.94	1.12	.001	88	6.85	7.89	1.04	.001
Nursing assistants	22	6.04	7.89	1.85	.001	19	5.91	7.75	1.84	.001
Medical secretaries	14	5.35	7.16	1.81	.01	14	5.35	6.85	1.5	.04

TABLE 1b. Self-Efficacy in Communication With Colleagues

	Communication with colleagues									
	Change from T1 to T2					Change from T1 to T3				
	<i>n</i>	T1	T2	T1-T2	<i>p</i>	<i>n</i>	T1	T3	T1-T2	<i>p</i>
All staff	159	6.85	7.84	0.99	.001	146	6.89	7.833	0.94	.001
Doctors	20	6.93	7.61	0.67	.02	17	7.03	7.53	0.5	.12
Nurses	93	6.82	7.83	1.01	.001	86	6.85	7.89	1.04	.001
Nursing assistants	21	7.25	8.25	1.00	.001	19	7.27	8.08	0.81	.007
Medical secretaries	17	6.70	7.69	0.98	.01	17	6.70	7.40	0.70	.02

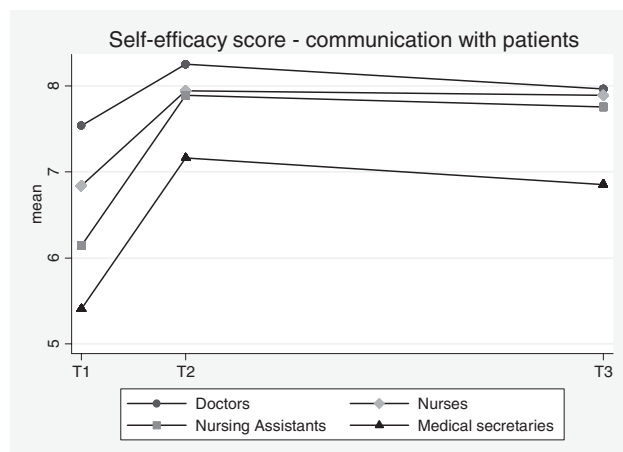


FIGURE 3a. Basis and development in self-efficacy in communication with patients by profession, shown as mean of mean scores of self-efficacy (y-axis) with all questions collapsed.

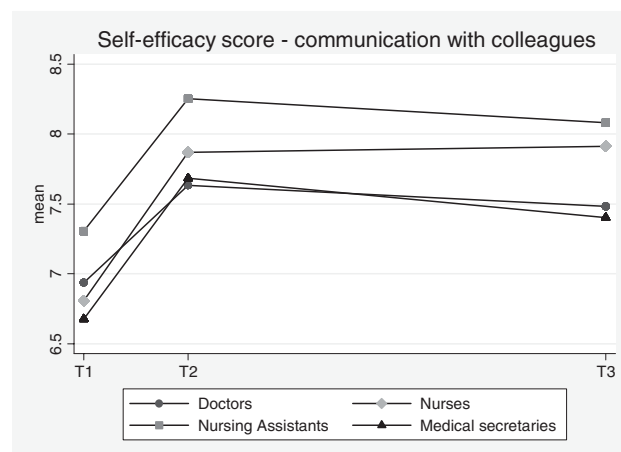


FIGURE 3b. Basis and development in self-efficacy in communication with colleagues by profession, shown as mean of mean scores of self-efficacy (y-axis) with all questions collapsed.

TABLE 1b shows the change from before the course (T1) to immediately after the course (T2) and from T1 to six months after the course T3 in mean of mean scores of self-efficacy in communication with colleagues.

When all professions are collapsed, the increases in self-efficacy from T1 to T2 and from T1 to T3 were significant for all questions regarding communication with both patients and colleagues, yet with a slight decrease from T2 to T3, as illustrated in FIGURES 4a and 4b. The analysis of differences between professions, age groups, and gender yielded no results reaching statistical significance, predominantly due to the collinearity between gender and profession (doctors are men/men are doctors), which made it impossible to do further analyses on gender in this data set (data not shown).

Discussion

A primary aim of this program for improving the communication skills of health care professionals was to increase the health care professionals' self-efficacy and improve intercollegial and patient communication. Although the study was performed in a real-world setting with many competing demands and involved participants with varying degrees of commitment due to the mandatory status of the course, it was possible to obtain increases in self-efficacy, an effect that was still present 6 months after the course. The results regarding communication with patients are similar to the findings of other studies^{7,25,27,30} showing improved communication skills after training, even though these papers report on efficacy studies.

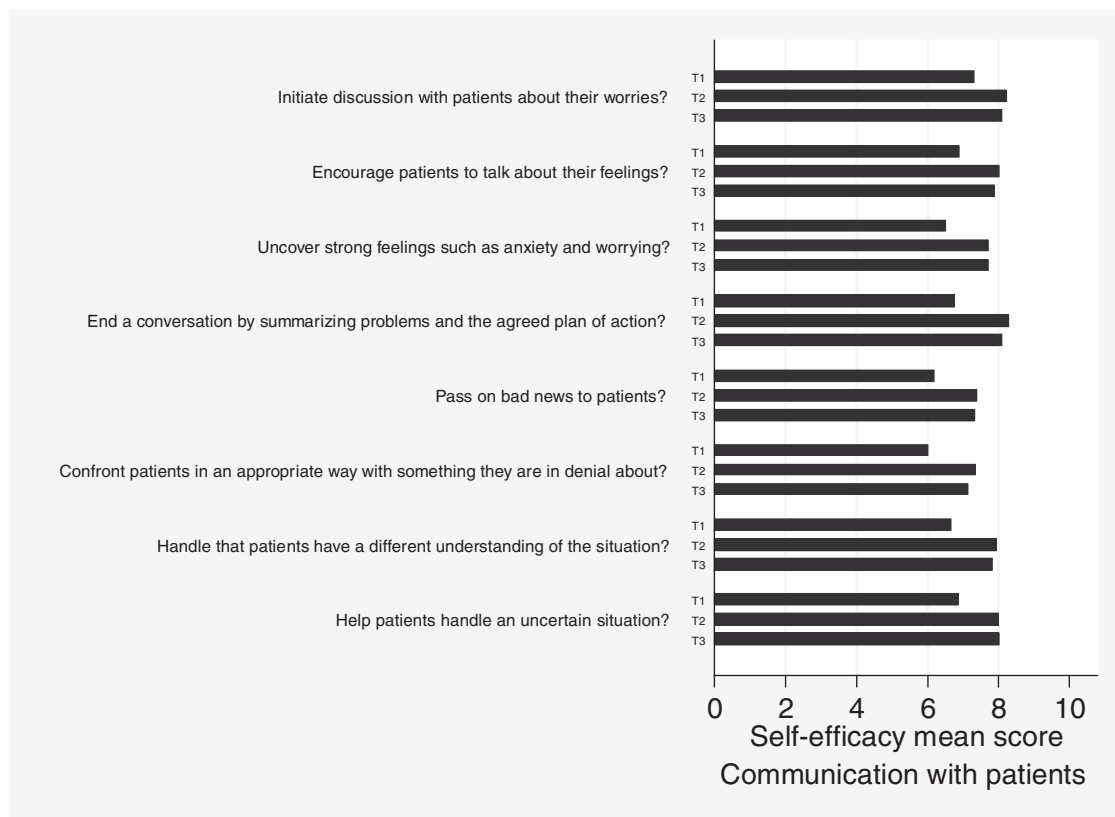


FIGURE 4a. Mean scores in the health care professionals’ self-efficacy in communication with patients before the communication skills training course (T1), immediately after the course (T2), and 6 months after the course (T3). The health care professionals were asked: “To which extent do you believe that you successfully can:”

The reported self-efficacy was approximately the same for doctors as for nurses and nursing assistants immediately following the course and 6 months later. However, at baseline the self-efficacy in communication with patients was higher for doctors than for other health professionals. This and the fact that the group of doctors was quite small might explain why the increase 6 months after the training course was lower and statistically nonsignificant. The doctors were the only profession having a lower self-efficacy in communication with colleagues than in communication with patients; the other 3 professions had a higher self-efficacy in communication with colleagues than in communication with patients. The fact that medical students are taught to focus primarily on doctor–patient communication with a minor focus on intercollegial communication has been problematized.³¹

The self-rating survey could be argued to represent a methodological weakness of this study, as it has been pointed out that self-ratings are reactive measures with the measure itself as an influence on the outcome,²⁰ resulting in either overrating or underrating.³² Although data were tested for a

ceiling effect, a test–retest in the internal reliability of the questionnaire would have been desirable.

Despite the fact that self-efficacy increased considerably for all professions, it is unknown whether the increased self-efficacy scores led to changes in communication behavior. However, as recommended by Weaver et al,¹⁷ we examined the impact of this program on patient satisfaction and found that the patients were significantly more satisfied with information, continuity, and care after the health care professionals had attended the training course. The detailed results are reported in a separate paper.¹⁶

We believe the training methods used were a significant contributor to our results. The course was designed to ensure that the skills learnt were immediately applicable in the health care professionals’ clinical practice, a strategy supported by principles of adult learning.³³ According to Maguire, communication skills are most effectively taught in problem-focused training workshops using strategies such as video recordings for feedback.³⁴ Maguire’s point of view is supported by others who assert that teaching communication skills should be experiential, because instructional

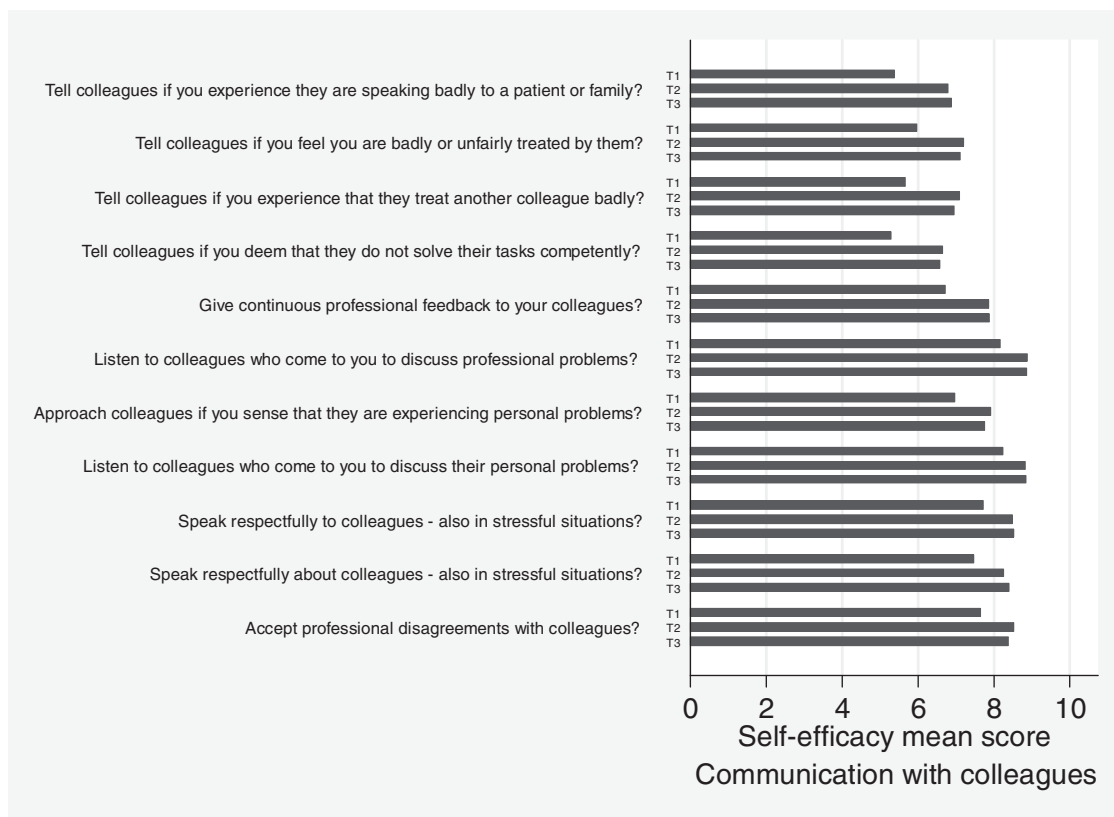


FIGURE 4b. Mean scores in the health care professionals’ self-efficacy in communication with colleagues before the communication skills training course (T1), immediately after the course (T2), and 6 months after the course (T3). The health care professionals were asked: “To which extent do you believe that you successfully can:”

methods alone do not provide the desired results and participants find it difficult to transfer communication skills learned in a training environment into the clinical setting.^{35–38} This view is supported by a meta-analysis of continuing medical education showing that interventions using active methods produce bigger effect sizes than interventions using passive methods.³⁹

This study shows that communication skills training can produce significant and durable increases in the self-efficacy of health care professionals in relation to communication with both patients and colleagues. It also demonstrates the importance of effectiveness studies in order to make research results more accessible and useful in the planning of interventions in larger organizational settings. Effectiveness studies can show whether it is possible to transfer the results of controlled and limited efficacy studies into real-world conditions and thereby improve the quality of the patient–clinician relationship. This study provides evidence that large organizational units, like clinical departments, can introduce well-designed training courses addressing communication with both patients and colleagues with good results.

Lessons for Practice

- Communication skills training increased the self-efficacy of doctors, nurses, nursing assistants, and medical secretaries in relation to communication with both patients and colleagues.
- Communication skills training can include all health care professions with patient contact.
- Communication skills training courses can embrace communication with both patients and colleagues with good results.
- The positive results of communication skills training delivered in controlled efficacy studies can also be produced through interventions in a real-world setting.

Acknowledgments

We gratefully acknowledge the generous support from Hospital Lillebaelt; the Department of Orthopaedic Surgery, Kolding Hospital; the Research Foundation of Fredericia and Kolding Hospitals; the Memorial Foundation of Gudrun Krause; and the Danish Nurses Organization (DSR).

References

- Berry B. *Health Communication: Theory and Practice*. Berkshire, England: Open University Press; 2007.
- Beckman HB, Markakis KM, Suchman AL, Frankel RM. The doctor-patient relationship and malpractice. *Arch Intern Med*. 1994 Jun 27;154:1365-1370.
- Epstein RM, Alper BS, Quill TE. Communicating evidence for participatory decision making. *JAMA*. 2004 May 19;291:2359-2366.
- Grol R, Wensing M, Mainz J, et al. Patients in Europe evaluate general practice care: an international comparison. *Brit J Gen Pract*. 2000 Nov;50:882-887.
- Stewart M, Brown JB, Donner A, et al. The impact of patient-centered care on outcomes. *J Fam Pract*. 2000 Sep;49:769-804.
- Dosanjh S, Barnes J, Bhandari M. Barriers to breaking bad news among medical and surgical residents. *Med Educ*. 2001 Mar;35:197-205.
- Langewitz WA, Eich P, Kiss A, Wössmer B. Improving communication skills—a randomized controlled behaviorally oriented intervention study for residents in internal medicine. *Psychosom Med*. 1998;60:268-276.
- Beach MC, Inui T. Relationship-centered care: a constructive reframing. *J Gen Intern Med*. 2006;21:3-8.
- Hargie O, Dickson D. *Skilled Interpersonal Communication: Research, Theory and Practice*. 4th ed. London, England: Routledge; 2004.
- Reader TW, Flin R, Cuthbertson BH. Communication skills and error in the intensive care unit. *Curr Opin Critical Care*. 2007;13:732-736.
- Reed RG, Silverman R, Schwind C, et al. Surgeon information transfer and communication: factors affecting quality and efficiency of inpatient care. *Ann Surg*. 2007;245(2):159-169.
- Jenkins VA, Fallowfield LJ, Poole K. Are members of multidisciplinary teams in breast cancer aware of each other's informational roles? *Qual Health Care*. 2001;10:70-75.
- Vahay DC, Aiken LH, Sloane DM, Clarke SP, Vargas D. Nurse burnout and patient satisfaction. *Med Care*. 2004;42:II-57-II-66.
- Suter E, Arndt J, Arthur N, Parboosingh J, Taylor E, Deutschlander S. Role understanding and effective communication as core competencies for collaborative practice. *J Interprof Care*. 2009;23(1):41-51.
- Bredin M, Corner J, Krishnasamy M, Plant H, Bailey C, A'Hern R. Multicentre randomised controlled trial of nursing intervention for breathlessness in patients with lung cancer. *BMJ*. 1999;318.
- Nørsgaard B, Kofoed P-E, Kyvik KO, Ammentorp J. Communication skills training for helath care professionals improves the adult orthopaedic patient's experience of quality of care. *Scand J Caring Sci*. 2012;doi:10.1111/j.1471-6712.2012.00982.x.
- Weaver SJ, Lyons R, DiazGranados D, et al. The anatomy of health team training and the state of practice: a critical review. *Acad Med*. 2010;85(11):1746-1760.
- Silverman J, Kurtz S, Draper J. *Skills for Communicating With Patients*. 2nd ed. Oxford, England: Radcliffe Publishing; 2005.
- Kurtz SM, Silverman JD. The Calgary-Cambridge Referenced Observation Guides: an aid to defining the curriculum and organizing the teaching in communication training programmes. *Med Educ*. 1996;30:83-89.
- Maguire P, Pitceathly C. Key communication skills and how to acquire them. *BMJ*. 2002;325:697-700.
- Bandura A. Self-efficacy: Toward a unifying theory of behavioral change. *Psychol Rev*. 1997;84(2):191-215.
- Bandura A, Cervone D. Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *J Pers Soc Psychol*. 1983;45:1017-1028.
- Bandura A. Perceived self-efficacy in cognitive development and functioning. *Educ Psychol*. 1993;28:117-148.
- Ammentorp J. *The Impact of a Training Course on the Communication Skills of Medical Doctors and Nurses: A Randomized Controlled Trial* [PhD thesis]. Aarhus, Denmark: Faculty of Health Sciences University of Aarhus; 2007.
- Finset A, Ekeberg O, Eide H, Aspegren K. Long term benefits of communication skills training for cancer doctors. *Psychooncology*. 2003 Oct;12:686-693.
- Ammentorp J, Sabroe S, Kofoed PE, Mainz J. The effect of training in communication skills on medical doctors' and nurses' self-efficacy: a randomized controlled trial. *Patient Educ Couns*. 2007;66:270-277.
- Ammentorp J, Kofoed PE. Coach training can improve the self-efficacy of neonatal nurses: a pilot study. *Patient Educ Couns*. 2009;doi:10.1016/j.pec.2009.08.015.
- Parle M, Maguire P, Heaven C. The development of a training model to improve health professionals' skills, self-efficacy and outcome expectancies when communicating with cancer patients. *Soc Sci Med*. 1997;44:231-240.
- Schwarzer R, Fuchs R. Self-efficacy and health behaviours. In: Conner M, Norman P (eds). *Predicting Health Behaviour: Research and Practice With Social Cognition Models*. Buckingham, England: Open University Press; 2005.
- Fallowfield LJ. How to improve the communication skills of oncologists. *Ann Oncol*. 2000;11(suppl 3):63-68.
- Baldwin Y. Communication with colleagues. *Student BMJ*. 2007;15:337-382.
- Jenkins VA, Fallowfield LJ, Poole K. Are members of multidisciplinary teams in breast cancer aware of each other's informational roles? *Qual Health Care*. 2001;10:70-75.
- Brookfield SD. *Understanding and Facilitating Adult Learning: A Comprehensive Analysis of Principles and Effective Practices*. San Francisco, CA: Jossey-Bass; 1996.
- Maguire P, Pitceathly C. Managing the difficult consultation. *Clin Med*. 2003;3:532-53.
- Levinson W, Roter D. The effects of two continuing medical education programs on communication skills of practicing primary care physicians. *J Gen Intern Med*. 1993;8:318-324.
- Aspegren K. BEME: Guide No. 2: Teaching and learning communication skills in medicine—a review with quality grading of articles. *Med Teach*. 1999;21:563-570.
- Aspegren K, Lonberg-Madsen P. Which basic communication skills in medicine are learnt spontaneously and which need to be taught and trained? *Med Teach*. 2005 Sep;27:539-543.
- Madsen PL, Pedersen BD, Aspegren K. Træning i informationsamtaler for medicinstuderende: fra det enkle til det komplekse. [Communication skills training for medical students: from the simple to the complex.] *Ugeskr læger*. 2005;167:3581-3583.
- Mansouri M, Lockyer J. A meta-analysis of continuing medical education effectiveness. *J Contin Educ Health Prof*. 2007;27(1):6-15.