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Teaching communication and stress management skills to junior physicians dealing with cancer patients: a Belgian Interuniversity Curriculum

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Abstract Background: Ineffective physicians' communication skills have detrimental consequences for patients and their relatives, such as insufficient detection of psychological disturbances, dissatisfaction with care, poor compliance, and increased risks of litigation for malpractice. These ineffective communication skills also contribute to everyday stress, lack of job satisfaction, and burnout among physicians. Literature shows that communication skills training programs may significantly improve physicians' key communication skills, contributing to improvements in patients' satisfaction with care and physicians' professional satisfaction. This paper describes a Belgian Interuniversity Curriculum (BIC) theoretical roots, principles, and techniques developed for junior physicians specializing in various disciplines dealing with cancer pa-

tients. *Curriculum description:* The 40-h training focuses on two domains: stress management skills and communication skills with cancer patients and their relatives. The teaching method is learner-centered and includes a cognitive, behavioral, and affective approach. The cognitive approach aims to improve physicians' knowledge and skills on the two domains cited. The behavioral approach offers learners the opportunity to practice these appropriate skills through practical exercises and role plays. The affective approach allows participants to express attitudes and feelings that communicating about difficult issues evoke. Such an intensive course seems to be necessary to facilitate the transfer of learned skills in clinical practice. *Conclusions:* The BIC is the first attempt to bring together a stress management training course and a communication training course that could lead not only to communication skills improvements but also to burnout prevention.

Keywords Cancer · Communication skills · Stress management · Training · Junior physicians

Introduction

Communication is a core clinical skill in medicine. In the course of a career spanning 40 years, a hospital physician is likely to do between 150,000 and 200,000 interviews with patients and their relatives [1]. Communication in cancer care is particularly challenging. Physicians in their everyday practice deal with breaking bad news, informing patients about highly complex treatment procedures, asking for informed consent and terminal care. To promote patient recall of information, decision making, and satisfaction with care, health care professionals need to tailor information to every patient's needs. To do so, they have to take into account contextual, cognitive, and emotional barriers that jeopardize patient information recall, effective decision making, and satisfaction with care [2].

However, majority of physicians have received little adequate formal training in communication skills during their curriculum [1, 3]. Traditionally, complex clinical skills have been acquired either by observing seniors or through clinical practice. Unfortunately, the way seniors communicate and especially deliver bad news may vary greatly, leading to even more confusion concerning the best approach [4]. Several studies have shown that few physicians are able to develop these complex skills after their medical training or after many years of clinical practice [5–8]. Moreover, junior physicians identify some barriers, such as lack of time which prevents them from being effective in communicating with patients and their relatives [4]. Consequently, physicians often pursue a 'physician-centered' approach in information gathering that discourages patients from talking about their concerns [3]. This ineffective communication leads to insufficient detection of patient's psychological disturbances [9, 10], dissatisfaction with care [11, 12], poor compliance [12, 13], and increased risks of litigation for malpractice [12, 14–17].

Insufficient training in communication skills also contributes to physicians' everyday stress in interviews, lack of job satisfaction, and burnout [1, 18]. The stress experienced in dealing with cancer patients' and their relatives' reactions to bad news [4, 19] coupled with lack of training may increase the risk of burnout. Stress outcomes may be somatic, behavioral, or emotional/cognitive. For example, acute stressors in the laboratory have been found to produce psychological and physiological changes such as increases in sympathetic nervous system activity (blood pressure and heart rate) and in cortisol secretions [20]. Therefore, it has been suggested that communication and stress management skills training programs could help improve communication skills, reduce stress outcomes, and prevent burnout among physicians. Moreover, physicians are beginning to recognize the value of engaging in a patient-centered approach to treatment and care [21] and of improving their communication and management skills [4, 21, 22].

During the last decades, research efforts have focused on training techniques to be used and communication skills to be taught [23]. The usefulness of learner-centered, skills-focused, and practice-oriented communication skills training programs organized in small groups and lasting at least 20 h has been confirmed [2]. These programs have shown to be useful in terms of physicians' acquisition of new skills in interviews (such as using open directive questions, clarification of psychological aspects, and empathy), leading to more disclosure of psychosocial concerns by patients, improvement in the recognition of these patients' psychosocial problems, and change in physicians' attitudes and beliefs [1, 11, 24–28]. An empathetic attitude toward the patient has also been shown to increase personal and professional satisfaction in physicians [11, 15].

Studies have indicated that patients with cancer are often accompanied by a relative in difficult medical situations [29–31], particularly at specific time points during the course of the disease: for initial visits immediately after disease recurrence and in the terminal phase of the disease [32]. Moreover, physicians from various specialties are dealing with cancer patients and their relatives. Little is known regarding physicians' communication skills in these contexts [33]. Nevertheless, physicians should be aware that communicating in three-person interviews (with a patient and a relative) requires skills that are difficult to use, contributing to a probably more stressful interaction than in two-person interviews. This is particularly stressful and difficult for physicians. Given that, a training focusing more systematically on the practice of skills in three-person interviews is needed [34]. Substantial improvements in the management of these difficulties should potentially be transferred to other medical situations.

Concerning the impact of communication skills training programs on physicians' level of stress and burnout, results are inconsistent [2]. If stress and burnout among physicians have to be prevented, increased resources will have to be required to develop training not only in communication skills but also in stress management skills. To our knowledge, no training program integrating both communication and stress management skills has been designed yet.

Therefore, a specific training bringing together a stress management skills and a communication skills training course has been designed for junior physicians specializing in various disciplines: a Belgian Interuniversity Curriculum (BIC). This paper describes BIC theoretical roots, principles, and techniques. The 40-h training focuses on two domains: stress management skills and communication skills, with a specific part focusing on skills needed to handle three-person interviews (with a patient and a relative). The content of this program is included in a detailed unpublished manual available on request from the authors.

Objectives and teaching method

The BIC is a training program developed for junior physicians that is intended to improve their stress management and communication skills in interviews with cancer patients and their relatives. The 40-h training course is divided into two parts: a 10-h stress management skills training course and a 30-h communication skills training course. The content of the program is summarized in Table 1: four sessions on stress management skills (four 2.5-h sessions), ten sessions on communication skills (two 1-h, seven 3-h, and one 4-h sessions), and the last 3-h session promoting the integration and use of learned skills.

The aim of the stress management skills training course is to promote better management of stressful situations and difficult interviews with cancer patients and their relatives by choosing the more adapted coping strategy¹. The communication skills training course aims at improving knowledge related to psychosocial consequences of cancer and effective communication skills and at developing facilitative communication behaviors with patients and their relatives. The whole program is designed to maintain the newly acquired skills and to promote the transfer of these skills to clinical practice. Finally, the BIC aims to increase physicians' work-related quality of life and to enhance patients' satisfaction with care.

To be effective, communication and stress management skills training programs have to be composed of learner-centered methods [35, 36] including a cognitive, a behavioral, and an affective approach [10, 37–41]. The cognitive approach aims to improve physicians' knowledge about effective communication skills (e.g., using open directive questions, clarification of psychological aspects, and empathy) [28] and stress management skills (e.g., self-monitoring of stress intensity, relaxation techniques, cognitive coping skills, and self-management skills such as time management) [40–46]. However, understanding what the appropriate skills are is not sufficient. The behavioral approach aims to practice these appropriate skills through exercises and role plays [3, 47]. This allows to improve their mastery and to test their consequences. These methods are more likely to result in changes in attitudes and behaviors [1, 3, 25, 27, 47, 48]. Finally, the affective approach allows participants to express attitudes, feelings, and perceived stress related with communication with cancer patients and their relatives [36].

The number of participants has to be small enough to allow each learner the frequent opportunity for practice, participation, and individualized coaching [3]. Learners have to take on an active role, that is, to learn by doing rather than by listening. Limiting the size of the group also creates the sense of personal safety required for participants

to disclose relevant attitudes and feelings [47]. Such a learner-centered approach requires one facilitator for every four to eight learners [3]. To simplify the transmission of difficult material, teaching aids such as slides and handouts are important as they help the facilitator follow the structure of the course more easily.

Stress management training course: techniques and content

Curriculum

The stress management skills training course consists of four 2.5-h sessions. The first one is part of the first-day session, and the three others take place in evening sessions. The sessions focus on four topics: detection of job stressors and stress outcomes, relaxation techniques, cognitive restructuring, and time management. The stress management training course has been designed to provide learners with a series of techniques that may help them prevent or minimize levels of work-related stress.

Specific techniques

A series of techniques are provided to physicians: use of daily diaries, theoretical information, relaxation, cognitive restructuring, time management techniques, and diverse written material. Describing stress by gathering information and making it more 'concrete' is the first step of the program. Junior physicians can do this by filling out daily diaries. It allows physicians to carry out behavioral analyses that can conduct to a personally relevant intervention. These techniques also help physicians distance themselves from the perceived stress and may even help them make more sense out of it. Then, theoretical information focusing on detection of work stressors and stress outcomes is given. Relaxation, cognitive restructuring, and time management techniques are also taught to provide physicians with skills to cope more effectively with the work stressors. Diverse relevant written materials are used: Comprehension and information retrieval are likely to be boosted if physicians hear information from the facilitator that they themselves have already read and understood, and if they are given the opportunity to read the same information over again following the session [49].

Content

The first session aims to detect the participants' own job stressors and stress outcomes, and ways of coping with stress. Stress outcomes may be somatic (e.g., muscular tension), cognitive (e.g., irrational thoughts), or behavioral outcomes (e.g., spending too much time on low-priority

¹ Coping is the changing thoughts and behaviors that people use to manage distress and the problem underlying the distress in the context of a specific stressful encounter or situation.

Table 1 Summary of training program's content

Sessions	Courses	Techniques	Content	Duration (h)
Day session 1	Communication with a cancer patient	Theory	Physician–patient communication in cancer care	1
	Stress management	Theory and exercises	Job stressors and stress outcomes detection	2.5
	Communication with a cancer patient	Role plays	Breaking bad news (a breast cancer diagnosis)	4
Evening session 1	Stress management	Theory and exercises	Relaxation techniques	2.5
Evening session 2	Communication with a cancer patient	Role plays	Breaking bad news (melanoma metastasis)	3
Evening session 3	Stress management	Theory and exercises	Cognitive restructuring	2.5
Evening session 4	Communication with a cancer patient	Role plays	Discussing transition from cure to palliation	3
Evening session 5	Stress management	Theory and exercises	Time management	2.5
Evening session 6	Communication with a cancer patient	Role plays	Clinical problems brought up by the participants	3
Day session 2	Communication with a cancer patient	Role plays	Clinical problems brought up by the participants	3
	Communication with a cancer patient and a relative	Theory	Communication with a cancer patient and a relative	1
	Communication with a cancer patient and a relative	Role plays	Including the relative in the interview	3
Evening session 7	Communication with a patient and a relative	Role plays	Clinical problems brought up by the participants	3
Evening session 8	Communication with a cancer patient and a relative	Role plays	Clinical problems brought up by the participants	3
Evening session 9	Integration and use of learned skills	Role plays	Clinical problems brought up by the participants	3

activities). In the following sessions, these stress outcomes are tackled by learning or reinforcing different coping resources [42].

In the second session, physicians learn relaxation techniques that help stop the somatic response. The relaxation response against stress brings on bodily changes, such as a decrease in heart rate, lower metabolism, decrease in the rate of breathing, which will all hopefully bring the body back to a healthier balance [49–51]. The trainer proposes a progressive muscular relaxation technique first described by Jacobson [52], which is widely practiced and studied with consistently positive results [50].

In the third session, physicians learn to develop other thinking mechanisms in reaction to a stressful situation. Stressors lead to distress only when they are interpreted as threatening [49, 51]. The effect of anticipatory negative thoughts on behavior is critical. Cognitive restructuring involves detecting negative or irrational thoughts and

replacing them with more positive and constructive ones [42].

Finally, in the fourth session, physicians learn time management. Stress may disrupt behaviors and provoke waste of time. Managing time effectively is vital to quality of life, health and effective stress management [49]. Time management principles and techniques are divided into three categories: prioritizing, scheduling, and implementing a life plan [53].

Communication skills training course: techniques and content

Curriculum

The 27-h training course includes 17 h of training in two-person interviewing skills (with a cancer patient alone) and

10 h of training in three-person interviewing skills (with a cancer patient and a relative). The course includes a 1-h session focusing on theoretical information and five 3-h small-group (five to eight participants) role-playing sessions on communication skills in two-person interviews. Following this, a 1-h session focusing on theoretical information and a three 3-h role-playing sessions on communication skills in three-person interviews are performed.

Specific techniques

The efficacy of role plays in changing communication behaviors has been established in a number of studies [3, 54–58]. The learner is given a particular role to play or alternatively ‘creates’ the role himself based on a medical problem he has experienced as a junior physician. He may adopt the patient role, a significant learning experience in itself. It gives the physician insights into how patients are affected by different communication strategies. A second learner plays the physician. It enables easy, a repetitive practice of specific interviewing skills with ready access to feedback and rehearsal [3]. In this context, errors can be made safely. Physicians are prevented from causing harm and can replay the situation time and time again [3]. Through modeling, physicians can learn skills and behaviors while looking at others when they are practicing the targeted skills. Modeling can have a profound effect on attitude [59, 60]. However, by itself it is not sufficient. Trainers should demonstrate key skills in action [47]. Hence, the opportunity to practice key skills and receive constructive feedback concerning performance is essential [47]. Feedback should be specific and descriptive rather than general and evaluative. It should focus on behavior rather than personality [3].

Content

In the part of the course focusing on two-person interviewing skills, the theoretical session covers the aims, functions, and specificity of physician–patient communication in cancer care and focuses on how to handle cancer patients’ distress. Two handbooks regarding these topics are recommended to participants [61, 62]. Physicians are then required to practice the principles discussed in the theoretical session through predefined role plays with immediate feedback offered by experienced facilitators. Themes are, for example, breaking bad news, giving information, and pain control. The following sessions focus on role plays based on the clinical problems brought up by the participants themselves. During the course, the facilitator introduces gradually the several steps of a clinical interview: setting up the interview, assessing

the patient’s perception as regards his or her illness, informing the patient, addressing the patient’s emotions with empathic responses, and finally, closing the interview. It is primordial that these steps should be linked together and adapted to the clinical situation.

Based on recent results [34], a specific training focusing on three-person interviewing skills (with a cancer patient and a relative) has been proposed. Approximately 20% of medical interviews in cancer care imply the presence of a relative [29]. The presence of a third person changes the interactional dynamics of interviews [34]. In this course, the theoretical session presents adequate communication skills that can be used in three-person interviews. Physicians then have to practice these communication skills in role plays based on clinical problems brought up by the participants. Specific topics are covered such as the complex relationship between physician and family, rules of communication circularity, and the risk of collusion with the patient’s family that an exclusive relationship between physician and patient or between physician and relative represents. The risk of collusion is common in the case of serious illness and has a negative impact on medical treatment and on the relationship between patient and relative [31]. The training aims to increase assessment and informative and supportive skills in circularity. It means to produce an interactional dynamics implying circularity between three persons to offer an actual role to each protagonist.

Conclusions

To summarize, few physicians have received formal training in communication during their curriculum [1, 3]. This might in part explain the substantial communication problems between physicians and patients contributing to an insufficient detection of psychological disturbances [9, 10], patient dissatisfaction with care [11, 12], poor compliance [12, 13], and increased risks of litigation for malpractice [12, 14–17]. This insufficient training in communication skills [1, 3] also contributes to everyday stress, lack of job satisfaction, and burnout among physicians, particularly when they have to manage breaking bad news [4, 18, 19]. Physicians are beginning to recognize the value of improving their communication skills [4], because developing effective communication skills is necessary to deal with difficult interviews with patients and their relatives. Communication skills training programs have shown to be useful in terms of changing physicians’ attitudes and beliefs, improving recognition of cancer patients’ psychosocial problems, and physicians’ acquisition of new skills in interviews with cancer patients [1, 11, 24–27].

However, few papers in the literature have detailed the content of communication skills training programs. Moreover, no training program has previously proposed an

integration of a stress management skills training course and a communication skills training course. The objective of this paper is to describe the BIC, which brings together a stress management training course and a communication training course, with a specific part focusing on skills needed to handle three-person interviews. The stress management training course has been added to prevent burnout in physicians. Training is learned-centered and includes different approaches (cognitive, behavioral, and affective).

There is a remaining concern: Will learned skills be transferred in clinical practice? Although the usefulness of communication skills training programs for physicians has been widely assessed in the last decades, the transfer of the acquired skills in clinical practice is still impaired by some barriers such as the inadequate amount of interviewing time [4]. The use of specific skills promoting patients' disclosure and relatives' inclusion may be facilitated by devoting a longer interviewing time for this purpose [34]. This need to devote more time for complex interviews should be recognized by institutions. Moreover, there is clear evidence that communication skills once learned are easily forgotten [23, 24, 56, 63–65]. The 40-h training of the BIC is probably necessary to ensure this transfer in the clinical practice. Training efficacy could be improved through implementing training programs during medical school at all three levels of medical education (under-

graduate, residency, and continuing medical education) or through organizing training sessions at the workplace.

Given the numerous remaining concerns, there is the need to further assess the training programs' efficacy. Assessments should include three different approaches that are complementary, as they allow evaluating the effect of training programs at different levels [2]. The first approach involves measuring participant-based outcomes which can be proximal measures directly related to physicians' behavior in the observed interview (i.e., increased confidence, comfort in interaction) or distal measures concerning the more general functioning of physicians (such as burnout and stress). The second approach concerns behavioral assessments of communication skills. These measures rely on audio or video recordings of medical interviews and on the objective coding of behaviors using one of several interaction analysis systems such as the Cancer Research Campaign Workshop Manual [66] or the Roter Interaction Analysis System [67]. The third approach involves measuring patient-based outcomes which can also be proximal measures (such as patient satisfaction with the interview) or distal measures (such as anxiety and quality of life) [2].

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References

1. Fallowfield L, Jenkins V, Farewell V, Saul J, Duffy A, Eves R (2002) Efficacy of a cancer research UK communication skills training model for oncologists: a randomised controlled trial. *Lancet* 359(9307):650–656
2. Merckaert I, Libert Y, Razavi D (2005) Communication skills training in cancer care: where are we and where are we going? *Curr Opin Oncol* 17(4): 319–330
3. Kurtz S, Silverman J, Draper J (1998) Teaching and learning communication skills in medicine. Radcliffe Medical Press, Oxon
4. Dosanjh S, Barnes J, Bhandari M (2001) Barriers to breaking bad news among medical and surgical residents. *Med Educ* 35(3):197–205
5. Calkins DR, Rubenstein LV, Cleary PD, Davies AR, Jette AM, Fink A et al (1991) Failure of physicians to recognize functional disability in ambulatory patients. *Ann Intern Med* 114(6):451–454
6. Irwin WG, Bamber JH (1984) An evaluation of medical student behaviours in communication. *Med Educ* 18 (2):90–95
7. Maguire GP, Rutter DR (1976) History-taking for medical students. I—Deficiencies in performance. *Lancet* 2 (7985):556–558
8. Walker LG (1996) Communication skills: when, not if, to teach. *Eur J Cancer* 32A(9):1457–1459
9. Faulkner A, Maguire P (1996) Talking to cancer patients and their relatives. Oxford University Press, Oxford
10. Razavi D, Delvaux N (1997) Communication skills and psychological training in oncology. *Eur J Cancer* 33 (Suppl 6):S15–S21
11. Baile WF, Kudelka AP, Beale EA, Gloger GA, Myers EG, Greisinger AJ et al (1999) Communication skills training in oncology. Description and preliminary outcomes of workshops on breaking bad news and managing patient reactions to illness. *Cancer* 86 (5):887–897
12. Bird J, Hall A, Maguire P, Heavy A (1993) Workshops for consultants on the teaching of clinical communication skills. *Med Educ* 27(2):181–185
13. Ley P (1982) Satisfaction, compliance and communication. *Br J Clin Psychol* 21:241–254
14. Applegate WB (1986) Physician management of patients with adverse outcomes. *Arch Intern Med* 146 (11):2249–2252

15. Levinson W, Roter DL, Mullooly JP, Dull VT, Frankel RM (1997) Physician-patient communication. The relationship with malpractice claims among primary care physicians and surgeons. *JAMA* 277(7):553-559
16. Langewitz WA, Eich P, Kiss A, Wossmer B (1998) Improving communication skills—a randomized controlled behaviorally oriented intervention study for residents in internal medicine. *Psychosom Med* 60(3): 268-276
17. Orr CJ (1989) How to minimize litigation. *Br J Hosp Med* 42(6):439
18. Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM (1996) Mental health of hospital consultants: the effects of stress and satisfaction at work. *Lancet* 347(9003):724-728
19. Ptacek JT, Eberhardt TL (1996) Breaking bad news. A review of the literature. *JAMA* 276(6):496-502
20. Cohen L, Baile WF, Henninger E, Agarwal SK, Kudelka AP, Lenzi R et al (2003) Physiological and psychological effects of delivering medical news using a simulated physician-patient scenario. *J Behav Med* 26(5):459-471
21. Kinnersley P, Stott N, Peters TJ, Harvey I (1999) The patient-centredness of consultations and outcome in primary care. *Br J Gen Pract* 49 (446):711-716
22. Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM, Leaning MS et al (1995) Burnout and psychiatric disorder among cancer clinicians. *Br J Cancer* 71(6):1263-1269
23. Hulsman RL, Ros WJ, Winnubst JA, Bensing JM (1999) Teaching clinically experienced physicians communication skills. A review of evaluation studies. *Med Educ* 33(9):655-668
24. Razavi D, Merckaert I, Marchal S, Libert Y, Conrads S, Boniver J et al (2003) How to optimize physicians' communication skills in cancer care: results of a randomized study assessing the usefulness of posttraining consolidation workshops. *J Clin Oncol* 21 (16):3141-3149
25. Jenkins V, Fallowfield L (2002) Can communication skills training alter physicians' beliefs and behavior in clinics? *J Clin Oncol* 20(3):765-769
26. Levinson W, Roter D (1993) The effects of two continuing medical education programs on communication skills of practicing primary care physicians. *J Gen Intern Med* 8(6):318-324
27. Fallowfield L, Lipkin M, Hall A (1998) Teaching senior oncologists communication skills: results from phase I of a comprehensive longitudinal program in the United Kingdom. *J Clin Oncol* 16 (5):1961-1968
28. Maguire P, Faulkner A, Booth K, Elliott C, Hillier V (1996) Helping cancer patients disclose their concerns. *Eur J Cancer* 32A(1):78-81
29. Beisecker AE, Moore WP (1994) Oncologists' perceptions of the effects of cancer patients' companions on physician-patient interactions. *J Psychosoc Oncol* 12:23-39
30. Adelman RD, Greene MG, Charon R (1987) The physician-elderly patient-companion triad in the medical encounter: the development of a conceptual framework and research agenda. *Gerontologist* 27(6):729-734
31. Labrecque MS, Blanchard CG, Ruckdeschel JC, Blanchard EB (1991) The impact of family presence on the physician-cancer patient interaction. *Soc Sci Med* 33(11):1253-1261
32. Ballard-Reisch DS, Letner JA (2003) Centering families in cancer communication research: acknowledging the impact of support, culture and process on client/provider communication in cancer management. *Patient Educ Couns* 50(1):61-66
33. Libert Y, Merckaert I, Reynaert C, Delvaux N, Marchal S, Etienne AM et al (2005) Does psychological characteristic influence physicians' communication styles? Impact of physicians' locus of control on interviews with a cancer patient and a relative. *Support Care Cancer* (in press)
34. Delvaux N, Merckaert I, Marchal S, Libert Y, Conrads S, Boniver J et al (2005) Physicians' communication with a cancer patient and a relative: a randomized study assessing the efficacy of consolidation workshops. *Cancer* 103(11):2397-2411
35. Fellowes D, Wilkinson S, Moore P (2004) Communication skills training for health care professionals working with cancer patients, their families and/or carers. *Cochrane Database Syst Rev* (2):CD003751
36. Lipkin M, Kaplan C, Clark W, Novack D (1995) Teaching medical interviewing: the Lipkin model. In: Lazare A (ed) *The medical interview: clinical care, education, and research*. Springer, Berlin Heidelberg New York, pp 422-435
37. Bird J, Lindley P (1979) Interviewing skill: the effects of ultra-brief training for general practitioners. A preliminary report. *Med Educ* 13(5):349-355
38. Engler CM, Saltzman GA, Walker ML, Wolf FM (1981) Medical student acquisition and retention of communication and interviewing skills. *J Med Educ* 56(7):572-579
39. Evans BJ, Kiellerup FD, Stanley RO, Burrows GD, Sweet B (1987) A communication skills programme for increasing patients' satisfaction with general practice consultations. *Br J Med Psychol* 60(Pt 4):373-378
40. Dollard MF, Winefield AH (1996) Managing occupational stress: a national and international perspective. *Int J Stress Manag* 3(2):69-83
41. Bunce D (1997) What factors are associated with the outcome of individual-focused worksite stress management interventions? *J Occup Organ Psychol* 70(1):1-17
42. Jones F, Bright J (2001) *Stress: myth, theory, and research*. Pearson Education, Harlow
43. Meichenbaum D (1985) *Stress inoculation training*. Pergamon, New York
44. Ong L, Linden W, Young S (2004) *Stress management: what is it?* *J Psychosom Res* 56(1):133-137
45. Sims J (1997) The evaluation of stress management strategies in general practice: an evidence-led approach. *Br J Gen Pract* 47(422):577-582
46. van der Klink JJ, Blonk RW, Schene AH, van Dijk FJ (2001) The benefits of interventions for work-related stress. *Am J Public Health* 91(2):270-276
47. Maguire P, Pitceathly C (2002) Key communication skills and how to acquire them. *BMJ* 325(7366):697-700
48. Simpson M, Buckman R, Stewart M, Maguire P, Lipkin M, Novack D et al (1991) Doctor-patient communication: the Toronto consensus statement. *BMJ* 303(6814):1385-1387
49. Schafer W (2000) *Stress management for wellness*. Harcourt College, Orlando
50. Greenberg JS (1993) *Comprehensive stress management*, 4th edn. Brown and Benchmark, Dubuque
51. Légeron P (2001) *Le stress au travail*. Odile Jacob, Paris
52. Jacobson E (1929) *Progressive relaxation*. University of Chicago Press, Chicago

-
53. Seaward BL (1999) *Managing stress*. Jones and Bartlett Publishers, Boston
 54. Abel J, Dennison S, Senior-Smith G, Dolley T, Lovett J, Cassidy S (2001) Breaking bad news—development of a hospital-based training workshop. *Lancet Oncol* 2(6):380–384
 55. Maguire P, Faulkner A (1988) Improve the counselling skills of doctors and nurses in cancer care. *BMJ* 297 (6652):847–849
 56. Parle M, Maguire P, Heaven C (1997) The development of a training model to improve health professionals' skills, self-efficacy and outcome expectancies when communicating with cancer patients. *Soc Sci Med* 44(2):231–240
 57. Cohen-Cole SA, Bird J, Mance R (1995) Teaching with role-play—a structured approach. In: Lazare A (ed) *The medical interview: clinical care, education and research*. Springer, Berlin Heidelberg New York
 58. Roter DL, Cole KA, Kern DE, Barker LR, Grayson M (1990) An evaluation of residency training in interviewing skills and the psychosocial domain of medical practice. *J Gen Intern Med* 5 (4):347–354
 59. Bandura A (1988) *Principles of behavior modification*. Holt, Rinehart and Winston, New York
 60. Siegler M, Reaven N, Lipinski R, Stocking C (1987) Effect of role-model clinicians on students' attitudes in a second-year course on introduction to the patient. *J Med Educ* 62(11): 935–937
 61. Razavi D, Delvaux N (2002) *Interventions psycho-oncologiques: la prise en charge du patient cancéreux*. Masson, Paris
 62. Razavi D, Delvaux N (2002) *Psycho-oncologie: le cancer, le malade et sa famille*. Masson, Paris
 63. Jones LR, Badger LW, Ficken RP, Leeper JD, Anderson RL (1988) Mental health training of primary care physicians: an outcome study. *Int J Psychiatry Med* 18(2):107–121
 64. Maguire P, Booth K, Elliott C, Jones B (1996) Helping health professionals involved in cancer care acquire key interviewing skills—the impact of workshops. *Eur J Cancer* 32A(9): 1486–1489
 65. Kurtz SM (1989) Curriculum structuring to enhance communication skills development. In: Stewart M (ed) *Communicating with medical patients*. Sage, Newbury Park
 66. Booth C, Maguire P (1991) Development of a rating system to assess interaction between cancer patients and health professionals. Report to Cancer Research Campaign, London
 67. Roter D, Larson S (2002) The Roter interaction analysis system (RIAS): utility and flexibility for analysis of medical interactions. *Patient Educ Couns* 46(4):243–251