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Learning clinical communication skills: Outcomes of a program for professional practitioners☆

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ABSTRACT

Objective: To assess the effects of a communication skills program on professional practitioners' performance and self-confidence in clinical interviewing.
Methods: Twenty-five health professionals took 3 months of basic communication skills followed by 3 months of advanced communication skills. An additional quarter dealt with self-awareness and communication in special situations. Participants' performances were evaluated in clinical interviews with standardized patients before, during and after the program by external observers and standardized patients, using standardized instruments. Participants assessed their own confidence in their communication skills before and after the program. Data were analysed using GLM repeated-measures procedures in SPSS.
Results: Basic communication skills and self-confidence improved throughout the 6 months; competencies declined but self-confidence continued to increase 4 months later. Compared with taking no course, differences were statistically significant after the 6 months (external observers only) and 4 months later (external observers and participants).
Conclusion: The program effectively improved communication skills, although significantly only when assessed by external observers. Four months later, effects were significant in communication skills (external observers), despite the decline and in self-confidence.
Practice implications: While periodical enrollment in programs for the practice of communication skills may help maintain performance, more knowledge on communication and self-awareness may enhance self-confidence.

1. Introduction

Communication skills programs for health professionals have been called for in response to evidence indicating that practitioners often feel at a loss in this domain. Even if contemplated in some academic programs, these skills are not learned spontaneously after completion of undergraduate degrees [1]. Though technical competency increases throughout the years, relational skills tend to decline during clinical years [2]. Yet, the importance of effective communication in clinical contexts has long been established and shown to enhance patient satisfaction and compliance with treatment and doctors' decisions [3], adjustment to chronic illness [4], as well as health outcomes, including emotional health, resolution of symptoms, pain control and physiological measures (e.g., blood pressure and blood sugar) [5–8].

Results from studies on programs teaching communication skills are promising, showing improvement in practitioners' interpersonal and interviewing skills, as well as in their confidence levels [9–11]. Depending on the teaching method employed, the levels of efficacy of communication programs can vary. Typically, those with more hours of training, including extra practice modules or consolidation workshops following basic training, result in higher levels of change [12]. Additionally, programs that include modules on self-awareness promote self-confidence by encouraging introspection and self-correction [13]. Self-confidence may thus benefit from contents and learning strategies beyond those involved in the actual acquisition of communication skills.

The relationship between communication skills and confidence in the use of such skills (self-efficacy) is somewhat unclear. Higher

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confidence levels in one's ability to carry out an action have been associated with greater likelihood of actual performance of that action [14]. However, while low levels of self-confidence can reduce the effectiveness of training programs [8], increased self-confidence after a program may reflect response biases (e.g., willingness to show that the program was effective), rather than the actual outcome [15]. These considerations have called for the need of multiple evaluation types that include not only self-reported, subjective assessments of one's efficacy, but also external observers' appraisals of that efficacy to inspect how changes in self-confidence translate into uses of communication skills [15,16].

Encounters with standardized patients constitute a high fidelity method for evaluating communication and relational skills [17,18]. Both external observers and standardized patients can provide evaluations of interpersonal and communication skills used. However, studies suggest that communication skills academic teachers focus on may not reflect the skills patients consider to be important [19]. Trained raters will more likely measure the elements of the Kalamazoo Consensus Statement (e.g., build and maintain a therapeutic relationship, demonstrate caring and respectful behaviours, listen effectively, elicit information with effective questioning skills, provide information using effective explanatory skills, counsel and educate patients, make informed decisions based on patient information and preferences) [18,20], whereas patients' appraisals will be based on global impressions that are strongly influenced by halo or ceiling effects and by the extent to which their reason for seeking care is satisfied [20]. Thus, patients' appraisals provide an important complement to teachers' evaluations [19,20].

To address the need for advanced education on communication in professional clinical settings, the Department of Medical Psychology of the School of Medicine, University of Porto, offers a program on communication skills at the postgraduate level, called Clinical Communication Skills (CCS). The current work examines the results of the 2008 CCS program on its participants' basic communication skills and sense of confidence in clinical encounters, inspecting changes in both with the program.

2. Methods

2.1. Design

The CCS program is described in detail elsewhere and is presented schematically in Fig. 1 [21]. Summarily, the year-long sequence comprises 3 initial months dedicated to basic communication skills (structuring an interview, patient-centered interview, doctor-centered interview, non-verbal behavior and building a clinical relationship), followed by 3 months of advanced communication skills (dealing with strong emotions, breaking bad news, motivational interviewing). In this second quarter, students are not only exposed to new, complex situations but also apply and further practice previously acquired basic communication competences along with the more advanced ones.

Classes meet twice a week for 5 h each day and typically include theoretical presentations of the materials, role-modeling through video viewing and discussion and role-playing in small groups (six or seven people), for individual practice and analysis (class structure and module evaluation are presented in Fig. 2). The role-playing practice represents a substantial part of the program (about 67% of the course load) and uses previously written scripts featuring hypothetical clinical situations as the basis for practice. The program includes an additional 3-month period after the two initial quarters, differing from them in scope and structure: it is dedicated to issues of self-awareness and self-help, as well as to communication in special situations (e.g., with patients unable to speak, with children), having a lesser emphasis on practice. Because the current study assesses the acquisition and application specifically of basic communication skills, it considers the program to have the duration of the initial 6 months, which focus on these competencies.

In the 2008 CCS program, participants were evaluated at four moments in time: before taking the program (T0); 4 months into the program, at the end of the basic communication skills section (T1); 7 months into the program, at the end of the advanced skills section (T2) and 4 months later, at follow-up (T3). In each of these moments, participants conducted a 25 min interview with standardized patients trained to perform situations adapted to their different professional backgrounds. For each interview, they were evaluated on their use of basic communication skills (at T0, T1, T2 and follow-up). Additionally, they were also evaluated on their level of personal confidence in conducting clinical interviews before taking the program (at T0) and after (at T2 and, again, at follow-up), according to Smith et al.'s [16] procedures.

2.2. Participants

Twenty-five professionals from different health care backgrounds (e.g., physicians, nurses, clinical psychologists, physiotherapists) underwent the program. They were in the beginning of their professional careers, having a similar amount of professional experience (no more than an average of 3 years of practice).

2.3. Instruments

The instruments employed were the SEGUE framework [22] and the Interpersonal and Communication Skills Checklist (ICSC) [23].

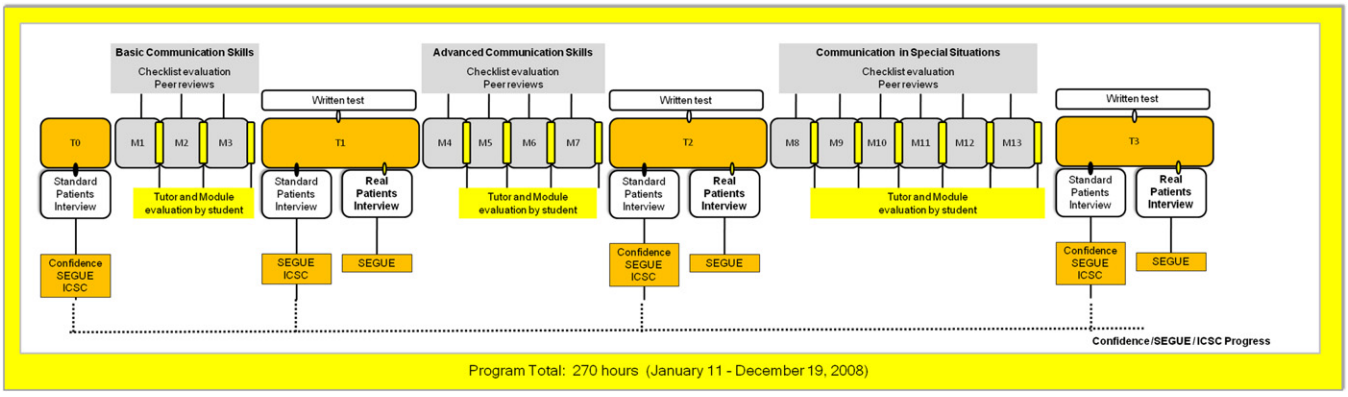

Fig. 1. Diachronic perspective of the program, including module organization (M), evaluation times (T) and instruments used to evaluate students and assess the program.

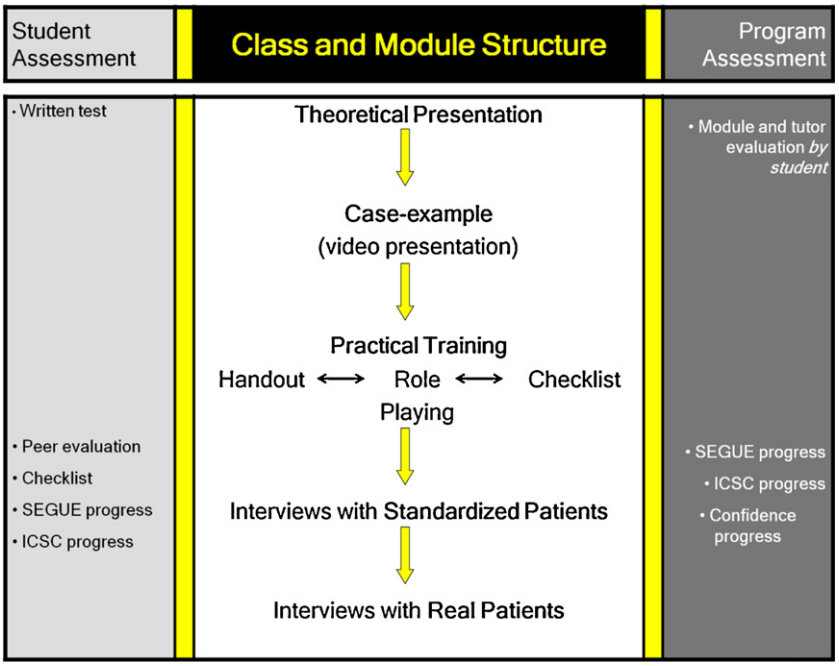

Fig. 2. Class structure and module evaluation (including instruments used to assess the program and evaluate the students).

These two instruments, to be rated by external observers and by standardized patients respectively, are equivalent in the aspects of the interview they cover and were selected because of the rating of their overall value, combined with their efficiency and psychometric characteristics [20]. Additionally, a version of the measure of confidence developed by Smith et al. [16] was also used.

2.3.1. The SEGUE framework

The SEGUE framework is a nominal (yes/no) scale designed to facilitate teaching and assessment of critical communication tasks [22]. It is a 25-item checklist divided into 6 content areas (set the stage, elicit information, give information, understand the patient's perspective, end the encounter) + an additional area to be coded if a new or modified plan is suggested. Seventeen items refer to content and should be coded 'yes' if the topic is covered or the behavior enacted at least once. Eight items refer to form and should only be coded 'yes' if they are maintained throughout the whole interview [18,22]. The SEGUE framework has the advantage of being applicable to a variety of health professions [22]. Easy to use, it has also demonstrated acceptable psychometric characteristics (inter-rater reliability, validity and sensitivity to differences in performance) in varied contexts over the past several years [20,22].

2.3.2. The ICSC

The ICSC was developed by the eight medical schools in the New York City Consortium for Clinical Competence [23]. It is a 17-item (yes/no) checklist of interpersonal and communication skills, moving from "opening" to "closing" the interview (e.g., the student opened the interview by introducing himself/herself; the student put me at ease; the student was empathetic; the student maintained a comfortable and appropriate distance during the interview; the student came to a satisfactory closure), to be rated by standardized patients [20,23]. It has shown acceptable psychometric properties (in one study, it presented an inter-rater reliability of 0.65 [23]).

2.3.3. Self-efficacy

Smith et al. developed a questionnaire to assess residents' attitudes towards psychosocial skills used in medical care before and after a training program. This tool is a 38-item, 7-point Lickert scale that can be written in three different forms to evaluate three different attitudes: self-efficacy, outcome expectancy and commitment. The domain items were chosen from the authors' training program curriculum and from the psychosocial medicine literature [16]. In the current study, we adapted some of these items to our program contents. To fit our curriculum, we used a 17-item seven-point Lickert scale to evaluate participants' sense of self-efficacy towards clinical communication skills (e.g., How confident are you that you can refrain from interrupting the patient? How confident are you that you can avoid making the patient feel rushed? How confident are you that you can shift the agenda from the patient's to your own at the appropriate time? How confident are you that you can maintain the flow of the interview? How confident are you that you can identify unexpressed feelings?). Because this study focuses specifically on basic communication skills, we analyse only the 10 initial items and exclude the remaining ones, directed at advanced skills and special situations.

These instruments were translated from their original English version into Portuguese. Each participant's videotaped interview was rated on the SEGUE framework by two different program instructors. Participants' performances were also rated by their standardized patients after each interview, on the ICSC. Additionally, on the day of the interview, participants rated their own levels of confidence in conducting clinical encounters. This multi-method strategy ensured the assessment not only of subjective effects of taking the program (i.e., participants' confidence in their own competence in clinical encounters after the program), but also of objective effects through faculty's external observations and standardized patients' experiences of the encounters.

2.4. Analysis

For the SEGUE framework, as well as for the ICSC, the score was the percentage of items checked 'yes' in each interview. The mean of the scores given by the two different SEGUE raters was calculated and used. For the measure of confidence, a rating-scale score was obtained by computing the mean of the ratings (from 1 to 5) for the 17 items. Total scores for each measurement time were obtained by calculating the mean of all students' scores in each of these three

instruments. Data were analysed using the GLM repeated-measures procedure in SPSS to allow examination of clinical interviewing performance and confidence over time, as the program unfolded and learning occurred. Bonferroni correction was used for comparisons of different performances across time ($\alpha = 0.01$).

3. Results

Table 1 shows the means of participants' communication skills and reported confidence at four points in time per different raters.

Participants' basic communication competency assessed by external observers using the SEGUE framework increases throughout the 6 months of the course (Fig. 3), first sharply (in the initial 3 months, measured at T1) and then more moderately until the 7th month (measured at T2). Four months later, at follow-up (T3), there is a slight decline in clinical communication performance. Within-subjects tests (including corrected Greenhouse–Geisser, Huynh–Feldt and Lower-bound procedures) reveal that effects of taking the course are significant, $F(3, 72) = 40.31$, $p < 0.01$. Within-subjects simple contrasts also show significant differences between performance before the course (at T0) and each measured performance after: at T1 ($F(1, 24) = 68.52$, $p < 0.01$), at T2 ($F(1, 24) = 104.83$, $p < 0.01$) and at T3 ($F(1, 24) = 44.02$, $p < 0.01$).

Results in basic communication skills obtained by standardized patients (with the ICSC) follow the same general pattern as those obtained by external observers: participants' communication performances increase throughout the program's 6-month period and then decline at follow-up (Fig. 3). However, standardized patients already rate participants' competency at a very high level before the program (their mean doubles that of external observers' for T0), varying within a small range afterwards and effects of taking the course (as shown by the corrected Greenhouse–Geisser, Huynh–Feldt and Lower-bound tests) are not statistically significant ($F(3, 72) = 2.18$, $p > 0.01$).

Participants' confidence in their interviewing communication skills increases almost linearly throughout the program (Fig. 3). Effects of taking the course on personal confidence are statistically significant at the 0.01 level, as shown by within-subjects tests (including the corrected Greenhouse–Geisser and Huynh–Feldt procedures), $F(2, 40) = 6.90$, $p < 0.01$. Participants were more confident at the end of the program (T2) than before taking it, at T0, although the difference is not statistically significant at the alpha level of 0.01 ($F(1, 20) = 5.86$, $p = 0.025$). After T2, their confidence level increased even more, and was significant at follow-up (T3), compared with T0, $F(1, 20) = 10.17$, $p < 0.01$ (Table 1).

Table 1
Communication skills and confidence means: significance levels for differences from T0.

	T0	T1	T2	T3
External observers (SEGUE framework[a])	0.37 (.15)	0.67* (.17)	0.69* (.14)	0.62* (.17)
Standard patients (ICSC[a])	0.74 (.24)	0.76 (.23)	0.87 (.16)	0.78 (.22)
Participants (confidence[b])	4.37 (.74)	–	4.78 (.72)	5.05* (.88)

[a] Instrument used to evaluate participants' communication competencies.
[b] Instrument used to evaluate participants' confidence (self-rated).
* $p < 0.01$.

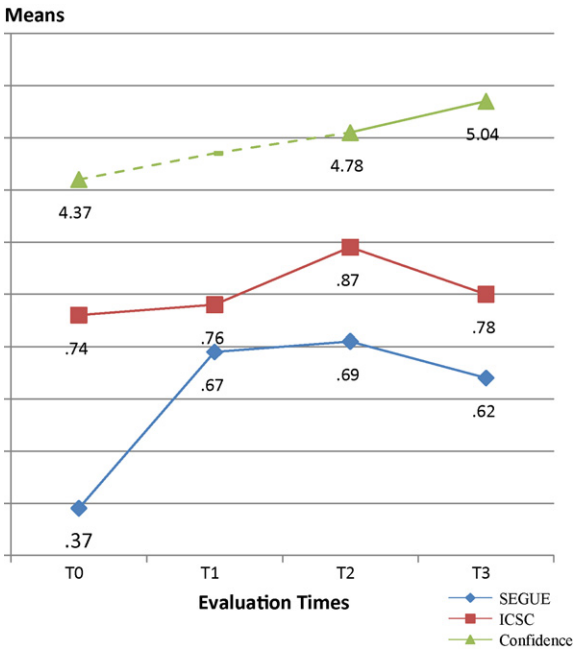

Fig. 3. Representation of basic communication skills (rated with the SEGUE framework by external observers and with the ICSC by standardized patients) and confidence (self-rated by participants) throughout the program.

4. Discussion and conclusion

4.1. Discussion

Results from external observers indicate that the course was effective in improving communication performance, and that its effects remained significant 4 months later, despite the observed decline. They also indicate that longer exposure to course materials and more practice (7 months into the course, at T2, compared to 3 months into the course, at T1) increase clinical communication competency, even if basic communication skills are practiced within the context of more advanced skills (although differences between T1 and T2, adjusting for multiple comparisons Type I error with Bonferroni procedures, are not statistically significant). The sharp increase in observed basic communication skills between T0 and T1 reflects an effect of the program plan, focusing on specific acquisition and intense practice of these competencies during its initial 3 months. Though statistically non-significant, the observed increase in their use between T1 and T2 suggests not only that the new, complex situations in this CCS program provided the opportunity for more practice, consolidation and extrapolation of acquired basic skills of communication, but also that such consolidation and extrapolation may be important to reinforce their use. The slight decline observed at follow-up accompanies the program's built-in distancing from strict presentation, discussion, and practice of basic communication skills throughout the last quarter of the course (after T2). This decline reinforces the idea that the course aided acquisition and consolidation of knowledge, since such gains started to wither a few months after the program targeted at basic communication skills was over. Even if decreased performance at T3 was not statistically significant comparing with performances at T2 and at T1 (adjusting for multiple comparisons Type I error with Bonferroni procedures), it points to the idea that the use of basic communication competencies tends to decline in time and that periodical enrollment in communication skills courses may contribute to maintaining and upgrading this kind of competency among clinicians, as the literature has suggested [1,2,12].

Regarding standardized patients' assessments, research has called attention to the fluid notion of effective communication: what is effective for some patients or in some settings may not be for others or in other contexts [23]. Fluidity of effective communication could be what is reflected in the differences noted between standardized patients' and external observers' scores, the former placing perhaps less importance on some communication skills than the latter, hence also on changes in

those communication skills. These differences may also stem from the fact that external observers (faculty members) are specifically trained to assess the use of communication skills, whereas standardized patients are not. Research has suggested that training faculty members results in changes in their rating behaviors, which become more stringent than non-trained members' [24]. Even though aware of what is expected from students, standardized patients may be less attuned to some specificities of effective communication in clinical settings than experienced faculty. Supporting this idea, standard deviations (Table 1) are greater for the former raters than for the latter, indicating more homogeneity among experienced faculty and more variation among standardized patients. In addition, the status of standardized patients is different from that of external observers, since they simultaneously "experience" the encounter in which they also perform. This may lead their evaluations in directions different from those of external, trained observers. It may affect their scores in ways similar to those reported in research about patients, indicating that they tend to provide global impressions that are also strongly influenced by halo effects [20]. Still, relating with the notion of fluidity of effective communication, even if halo effects are at work here (e.g., participants' "niceness" or "nervousness" in the exam situation, or other), these results call for some caution in the teaching and professional application of communication skills. These skills are effective so long as they are meaningful for the patients, and should not be used indiscriminately or with academic levels of detail, under the risk of being useless or even harmful, if they are removed from patients' realities. Previous research makes a similar point [25–27]. Analyses of basic communication skills in interviews with real patients also conducted during the 2008 CCS program (Fig. 1) are currently under way and may cast further light onto these issues. Finally, the instruments used by the two kinds of evaluators are also different. Specifically, the ICSC coding instructions are more general than the SEGUE framework's, which may lower that measure's sensitivity to differences. One study comparing these two instruments' psychometric properties did report higher values for the SEGUE framework than for the ICSC [20].

Despite the above-mentioned differences, in general, results from standardized patients using the ICSC reinforce those from external observers using the SEGUE framework: they follow a similar pattern, peaking at the end of the program.

Results in the measure of confidence parallel the pattern observed for the SEGUE framework and for the ICSC in the initial 6 months of the program. Subjective self-evaluations are thus corroborated by external observations. According to the literature, the continued increase in self-confidence when the actual use of communication skills starts to decrease could reflect a response bias due to participants wanting to show that the course was effective [15]. However, in the current program, this result may indicate that, while basic communication skills learning and practice were the main focus of the initial 6 months, dealing with special situations and with self-awareness and self-help issues (the topics of the last quarter of the program) contributed to increase (reaching statistical significance) participants' confidence in their use of basic communication competences during clinical interviews. This is consistent with previous research [13] and with the notion that changes in self-confidence may be affected by aspects other than acquiring and practicing communication skills. If initial unfamiliarity with clinical communication techniques is associated with lower levels of confidence, knowledge acquisition and practice of such skills helps to initiate an increase in self-confidence. However, the sense of confidence peaks with knowledge on communication in specific situations and discussion of self-awareness and self-help issues, even if there is actual loss of communication skills use with lack of specific practice.

The use of a control group could cast further light into the findings, namely to disentangle the aspects involved in the steady increase in participants' self-confidence. Also, the inspection of communication with real patients is important for assessing the application of acquired skills (and self-confidence in doing it) to actual clinical situations, especially in the context of the differences observed between external observers and standardized patients, as mentioned earlier. Despite these limitations of the current study, the fact that it complements self-rated assessments with evaluations by external observers and by standardized patients at different points of the communication skills program, including before and after the program, is an important strength of its design

4.2. Conclusion

Results show increase in communication competency and in confidence with the 6-month program and some decline in competency, but continued increase in confidence, 4 months later. Compared with taking no course (T0), differences in communication skills are statistically significant at the end of the program (T2) in the SEGUE framework rated by external observers, but not in the ICSC rated by standardized patients or in the confidence measure self-rated by program participants. Differences are statistically significant 4 months later in the SEGUE framework (despite the decline) and in the measure of confidence (with its steady increase).

These results indicate that the course effectively improved communication skills and participants' levels of confidence, although more studies are necessary to inspect the changes noted with both standardized patients and participants' sense of self-confidence. The observed increase in performance throughout the 6 months of the course is in line with literature supporting the idea that acquisition and practice of new communication skills and the opportunity to consolidate them contribute to better competency in this domain, whereas further knowledge on communication in specific situations and on self-awareness and self-help issues contributes to increase self-confidence.

4.3. Practice implications

The decline at follow-up of basic communication skills, observed both in the SEGUE framework and the ICSC, may result from the absence of practice targeted specifically at these issues. An implication seems to be that maintenance of competency may require periodical enrollment in communication skills programs. The subjective sense of confidence in the use of basic communication skills in a clinical encounter, on the other hand, seems to benefit not only from acquisition and practice of basic communication skills but especially from broader knowledge that includes clinical encounters dealing with special situations, as well as self-awareness and self-help.

We confirm all personal identifiers have been removed or disguised so the persons described are not identifiable and cannot be identified through the details of the story.

Conflict of interest

The authors declare that they do not have any conflicts of interest.

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