

WCLTA 2013

## Learning Clinical Communication

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### Abstract

*Problem statement:* Clinician-patient communication is a basic skill that medical students should learn as part of their training process. Communication skills curriculums aim to develop effective communication with patients, carers, and colleagues by working on both verbal and non-verbal skills. These include being able to take a history and share information, and particularly explaining procedures and discussing treatment options and their effects. Students taking the *Communication, interview and clinical history* module are asked to follow a simulated-patient clinical interview, which is recorded and then self and tutor-assessed using standardized questionnaires.

*Purpose of study:* The aim of this study is to conduct a pilot test to compare questionnaire results for self and tutor-assessed video-recorded clinical interviews.

*Methods:* The results of students' self-assessment questionnaires within the *Communication, interview and clinical history* module (second year of the medical degree) were compared with those of their tutors. The questionnaire used was a shortened version of the 17-itemCICCA-D (*Conectar-Identificar-Comprender-Acordar-Ayudar* – Connect-Identify-Understand-Agree-Help) instrument (score of 2, 1 or 0 for each item), based on patient-centred interviews. The assessments were carried out independently from one another, with no previous training, after watching the clinical interview video recording.

*Results:* A total of 47 student and tutor assessments were carried out. Differences in the global average scores were statistically significant ( $p$ -value < 0.05). The students' mean self-assessment score was 13 (SD = 5), while the tutors' was 15 (SD = 5). A weak direct and statistically significant correlation was observed in the global questionnaire score between both self and tutor assessment ( $n = 47$ ): with an ICC of 0.41 (confidence interval [CI] 95%, (0.09 – 0.66).

*Conclusions:* Pilot test results show that tutors consider students having better communication skills than students themselves. Lack of previous training in the use of the questionnaire could be relevant. Further research is needed to confirm these preliminary results.

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Selection and peer-review under responsibility of the Organizing Committee of WCLTA 2013.

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Keywords:

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## 1. Introduction

Medical schools worldwide aim to produce competent physicians able to serve the community and advance the field of medicine [1]. Training should prepare medical students to deal with problems they will face in the future and equip them with the necessary skills to become active, self-directed learners, rather than passive recipients of information [2]. Competence is acquired through the development and integration of the cognitive, psychomotor and affective domains [3], and a well-designed curriculum should ensure students achieve this. On the other hand, professionalism has been described as a set of values and behaviors that underpin the social contract between patients and health care professionals.

Communication is a basic skill that medical students should learn as part of their training process due to the fact that it is a basic pillar of the clinician-patient relationship. Communication skills curriculums aim to develop effective communication with patients, carers, and colleagues by using both verbal and non-verbal skills. These include being able to take a history and share information, and particularly explaining procedures and discussing treatment options and their effects. Several factors complicate the attainment of expertise in clinical communication. Medical curricular training is often insufficient in providing the required practical learning conditions to overcome these obstacles. Several recommendations for learning objectives and teaching methods for the attainment of professional expertise in patient education have been already made [4], such as using teaching and assessment methods which contain stimulating learning tasks with opportunities for immediate feedback, reflection and corrections, and give ample opportunity for repetition, gradual refinements and practice in challenging situations. Video recording fits these requirements and can be used to improve undergraduate medical students' communicative competence as it may strengthen communication training and reinforce skills introduced earlier in medical education [5][6][7].

Problem-based learning is the basic learning strategy used on the University of Girona's medical program. It focuses not only on evaluating medical knowledge and skills, but also on appraisal of students' learning and teamwork abilities, communication skills and sense of responsibility. Students taking the *Communication, interview and clinical history* module (second year students) are asked to conduct a simulated-patient clinical interview, which does not appear in the official curriculum. Professional clinicians act as the simulated patients. After being recorded, students are asked to evaluate themselves by using a standardized questionnaire, the same one used by tutors for the evaluation process.

The aim of this study is to compare self and tutor-assessment questionnaires results for video-recorded clinical interviews, in order to determine differences in perceptions and aspects to be improved for following years in terms of content and skills learning related with this module.

## 2. Methods

### 2.1 *Communication, interview and clinical history module description*

The training starts with simple basic skills but gradually slips into medical communication or consultation training and results in communication in different contextual situations. Several teaching methods are used: four specific problems are discussed briefly in groups of 10 students. The main skills to be reflected on and trained are: verbal and non-verbal communication skills; dealing with difficult situations; giving bad news or managing different kind of conflicts with patients or colleagues. Communication skills are trained by means of case study discussions and role-playing with fellow students. Finally, at the end of the module, each student is asked to do an interview with a simulated patient and this interview is recorded and viewed by students in small groups, together with the tutor, in order to analyze students' strengths and weaknesses. Each student has to produce a self-assessment report, which is

assessed by his/her tutor. Patient simulated interview video recording assessments account for 10% of the *Communication, interview and clinical history* module assessment.

## 2.2 Assessment questionnaire description

Communication skills assessment was also conducted by administering a standardized questionnaire after recording simulated patient clinical interviews. The standardized questionnaire was a shortened version of the 17-item CICCA-D (*Conectar-Identificar-Comprender-Acordar-Ayudar* – Connect-Identify-Understand-Agree-Help) instrument (score of 2, 1 or 0 for each item), based on patient-centred interviews and aimed at assessing shared decision-making. This scale has been shown to be reliable, valid and efficient. Seventeen items encompassing different skills and attitudes are clustered around three different dimensions: (i) problem identification and understanding, (ii) agreements and action plan and (iii) decision-making.

Only a representative sample of all second-year medical school students was asked to fill in the questionnaire, and their tutors did the same. The two assessments were performed independently, without previous training, after watching the clinical interview video recordings.

## 2.3. Statistical analysis

Global average assessment questionnaire scores were determined for students and tutors and compared by determining the mean and standard deviations. In order to analyze correlation between students' and tutors' assessments, a concordance analysis was performed using the intraclass correlation coefficient (ICC). The statistical analysis of the data was performed using the program SPSS, version 15.0 for Windows. Results were considered statistically significant when  $P < 0.001$ .

## 3. Results

A total of 47 student and 10 tutor assessments were performed. Differences in global average assessment questionnaire scores were statistically significant ( $p$ -value  $< 0.05$ ). The students' mean self-assessed score was lower (Mean = 13; SD = 3) than the tutors' mean score (Mean = 15; SD = 5). A weak direct and statistically significant correlation was observed between self and tutor-assessment in the global questionnaire score ( $n = 47$ ): with an ICC of 0.41 (confidence interval [CI] 95%, (0.09 – 0.66)). The  $k$ -coefficient for each of the 17 items has also been calculated (Table 1). Four items showed no correlation and the others show poor ( $< 0.25$ ) to weak correlations ( $< 0.5$ ), the  $k$  coefficient always being below 0.40.

## 4. Discussion and conclusions

Pilot test results show that tutors consider students to have better communication skills than students themselves. A lack of previous training in the use of the questionnaire could be relevant.

Results indicate that when using self-efficacy scores, second year Medicine students underestimate their communication skills with simulated patients. These results are consistent with other previously published studies [8,9], and in other scenarios where students' communication skills were scored by simulated patients [10]. The most important aspect is to decide which test is more useful in assessing students' communication skills in the first years of Medical degrees. The most important difficulty in the use of assessment scales is that both teachers and students require prior training, which means additional time and energy. The CICCA-D is a validated test at postgraduate level and focuses on promoting patient participation in decision-making [11]. In our study, the CICCA-D has been applied to students who have a first contact with clinical interviews. This is a clear limitation of our study given that test interpretation might not be applicable for some of the assessed items; on the other hand, it introduces students to a more practical and specific approach to their learning process at the beginning of their studies. In a study in which communication and clinical skills were assessed using seven different instruments, the *Calgary Cambridge scale* was the most powerful measure for discriminating skillful from less skillful communicators [12]. It would be useful

to validate these results in a Mediterranean population.

We believe that although self-efficacy assessment cannot be used as a tool for summative assessments, several studies have demonstrated that self-efficacy appears to be a significant item in the learning process, as it affects students' motivation, exertion, learning, and performance and thus can be used to make decisions regarding improving the training process by identifying their strengths and weaknesses in communication skills as future health professionals [13].

Among the main limitations of the study is the lack of a gold standard, which is often a key problem in this kind of studies. Teachers' assessments are considered gold standards, although this is questionable since it underestimates variability between observers. Ideally, validation by two or more observers would have been a better strategy.

Pilot test results show that tutors consider students to have better communication skills than students themselves. The teaching community faces the challenge of developing and validating new assessment tools for communication skills and it is important to involve students and patients in this process.

## 5. Acknowledgements

We are grateful for the contributions of the medical students and simulated patients.

Table 1. Correlation results referring to tutor and student self-assessment using a shortened version of the CICCA-D standardized questionnaire

<i>CICCA-D item</i>	N	K	CI95%	correlation
<b><i>PROBLEM AWARENESS AND IDENTIFICATION</i></b>				
1.-To what extent does the practitioner take into account the emotions and/or feelings that the symptoms, treatments or proposed process have on the patient?	44	0.26	[0.10,0.52]	Weak
2.-To what extent does the practitioner explore patient expectations?	45	0.30	[0.07, 0.52]	Weak
<b><i>AGREEMENT AND ACTION PLAN</i></b>				
3.-To what extent does the practitioner try to explain the process or the main symptom presented by the patient?	35	-0.10	[-0.22,0.10]	---
4.-To what extent does the professional properly define the problem?	40	0.25	[0.14, 0.30]	Weak
5.-To what extent does the practitioner try to explain the proposed treatment to the patient?	35	0.27	[0.17, 0.30]	Weak
6.-To what extent does the professional offer information tailored to the patient's problems and needs?	39	0.28	[-0.00, 0.41]	Weak
7.-To what extent does the practitioner provide clear information?	42	0.20	[0.00, 0.31]	Poor
8.-To what extent does the practitioner give the patient the opportunity to participate in shared decision-making?	33	0.15	[-0.01, 0.44]	Poor
9.-To what extent does the practitioner allow the patient to express his doubts?	44	-0.05	[-0.1, 0.02]	---
10.-If any disagreement or inconsistency arises between the professional and the patient, to what extent does the professional seek agreement (entering into discussion and considering patient's point of view)?	25	0.18	[-0.17, -0.23]	Poor
11.-To what extent does the practitioner find that the patient has understood the information provided?	42	0.30	[0.11, 0.45]	Weak
12.-To what extent does the practitioner allow the patient to take decisions or advise him or her to postpone the decision-making process?	32	-0.12	[-0.32, 0.00]	---
13.-To what extent does the professional obtain the patient's explicit commitment regarding the plan to follow?	31	0.13	[0.00, 0.40]	Poor
<b><i>DECISION-MAKING</i></b>				
14.-To what extent does the professional make proposals for possible diagnosis / treatment options?	29	0.32	[0.21, 0.66]	Weak
15.- To what extent does the professional report on the different options?	30	0.06	[-0.16,-0.14]	Poor

16.-To what extent does the practitioner allow the patient to ask questions about options?	34	0.20	[0.11, 0.49]	Poor
17.- To what extent does the practitioner explore the degree of involvement the patient wants to have in decision-making?	34	-0.12	[-0.15, 0.04]	---
	<b>n</b>	<b>ICC</b>	<b>CI 95%</b>	
<b>TOTAL (0 - 34 score)</b>	<b>47</b>	<b>0.41</b>	<b>[0.09 – 0.66]</b>	<b>Weak</b>

*SD: Standard Deviation; ICC. Intraclass correlation coefficient; CI: Confidence Interval*

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