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## Communication skills preparedness for practice: is there a key ingredient in undergraduate curricula design?

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# Communication skills preparedness for practice: is there a key ingredient in undergraduate curricula design?

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#### Abstract

**Theory:** Communication skills are an essential component of undergraduate medical curricula across countries. Presently, young doctors still recognize gaps in their training in this filed. Despite the existence of a number of consensus statements and models concerning communication skills teaching within medical education, current training programs are widely heterogeneous and there is scarce common outcome-based research.

**Hypothesis:** We hypothesize that undergraduate communication skills training programs, relying either on practice-oriented or theory-based teaching strategies and within a different time range, may influence young doctors' preparedness for practice regarding communication skills. The present study intends to inform educational background and to support further development of communication skills curricula.

**Methods:** Two hundred sixty-six medical interns answered an original questionnaire specifically designed to explore how well they feel their undergraduate training had prepared them in key aspects of medical communication. Items comprised the competencies set out in published literature and the preliminary version of the questionnaire was scrutinized by undergraduate and postgraduate medical educators, as well as experts on communication in healthcare. An Exploratory Factorial Analysis was performed and the instrument's psychometric properties were tested. Medical schools' curricula were reviewed, allowing characterization of curricular content, timing and number of curricular units covering communication skills teaching. In order to explore potential associations between academic curricula and medical interns' preparedness for practice, hypothesis testing with Mann-Whitney U tests for independent samples was performed.

**Results:** Core communication and interviewing skill were highly rated. Perceived preparedness was lower in aspects concerning dealing with emotion, breaking bad news, and communicating with speech impaired patients. Interns who were offered a longitudinal integration of

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communication skills throughout the curriculum reported significantly higher levels of preparedness. Simulation with standardized patients and real patient interviewing with feedback on communication skills were the most valued strategies to positively influence preparedness. We found no evidence for the advantage of role play, didactic videos and patient-simulation with mannequins.

**Conclusion:** The results of this study support the expansion of an educational model based on integrated communication skills training throughout undergraduate medical curriculum. Programs standing on a strong experimental component, particularly combining patient-simulation strategies with continuous supervision and learner centered feedback, significantly influenced preparedness. Efforts should be made to adopt such strategies in a customized and interactive format, tailored to medical students' different learning needs.

Keywords: communication skills; preparedness for practice; medical education.

#### Introduction

Teaching communication skills (CS) has been consistently recognized as an essential component of undergraduate medical education across countries. In Portugal more attention has been paid to this core clinical skill in recent years, which has been gradually included in undergraduate medical curricula in various forms and content. Presently, young doctors still recognize gaps in their training in this filed <sup>1, 2</sup>. Although a number of consensus statements and models to teaching CS within medical education already exist in international literature <sup>3-6</sup>, current CS training programs are widely heterogeneous <sup>7</sup>, and there is scarce common outcome-based research.

Currently, there are eight medical schools in Portugal: seven schools offer a six-year curriculum and one school has a four-year curriculum designed for graduate-entry students. After graduation, doctors complete the first year of post-medical school training known as the intern year, before they enter residency. Presently, the curricula of all Portuguese medical schools integrate CS teaching.

This study explores the views of Portuguese interns regarding how prepared they feel by their CS programs during undergraduate medical education. Preparedness for practice is operationalized as participants' reported sense of readiness and capability regarding CS performance. The meaning of 'preparedness' is left to the respondents' interpretation. Though this may be challenging epistemologically <sup>8</sup>, this operationalization warrants comparison with previous studies <sup>9-11</sup>. Moreover, if interns feel 'prepared for practice', we may assume that intended educational outcomes have been achieved <sup>8</sup>.

Our aim is to provide an overview on the current academic curricula, including CS teaching methods and training strategies, and exploring potential associations with young doctors' preparedness. In order to explore perceived preparedness, an original scale was

developed and its psychometric properties were tested. This study was intended to identify existing gaps and to support further development of CS curricula.

#### Methods

#### Participants and procedure

Study sample comprised 266 interns in their first year of post-medical school training (representing 13.2% of all cohort). Interns from seven Portuguese medical schools who had graduated in 2019 were invited to participate. A link to an online questionnaire was shared in social networks' groups of interns and was sent by e-mail to local representatives in all Portuguese public hospitals. The questionnaire was available online for three months. Participation in the study was entirely voluntary and no effort was made to carry out purposive sampling.

Interns who graduated in a foreign medical school, those who changed medical schools during their undergraduate training and interns who had a prior degree were excluded (therefore excluding from the analysis the graduate-entry medical school). Incomplete answers to the questionnaire were also excluded from the analysis.

Ethical approval for this study was obtained from the ethics committee of Coimbra Hospital and University Centre prior to participant recruitment.

#### Questionnaire design

A questionnaire was specifically designed to explore how well interns felt their undergraduate training had prepared them in key aspects of medical communication. Scale layout and questions' format were drawn from valid and reliable questionnaires assessing preparedness for practice <sup>10, 11</sup>. Items comprised the competencies set out in previous work in the published literature<sup>3, 6, 12-16</sup>, including studies carried out in Portuguese medical schools <sup>7, 17</sup>. The

questionnaire asked interns to express their agreement with the statement "After my undergraduate medical education, I feel prepared to…" for 34 items, divided into three domains: (i) core communication skills, (ii) breaking bad news and (iii) motivational interviewing. Participants answered using a six-point Likert scale ranging from "totally disagree" to "totally agree". Demographic data including age, gender and medical school were collected. Further questions allowed participants to detail individual CS training opportunities and extracurricular activities. The questionnaire also comprised the Portuguese version of the "Self-confidence in Using Psychosocial Skills Questionnaire" <sup>18</sup> with the purpose of testing for concurrent validity.

Qualitative analysis of items and instructions included content and facial validity. Thus, the questionnaire was scrutinized by undergraduate and postgraduate medical educators, as well as experts on communication in healthcare, including representatives from the Portuguese Society of Clinical Communication in Healthcare (SP3CS). A preliminary version was sent by e-mail, along with the name and contact information of the researchers, and a description of the objectives of the study. Each expert was asked to point out: (i) which items should be excluded, (ii) which items should be included that are not already addressed, and (iii) up to three essential items and three less essential. Afterwards, a pilot study was performed with 10 interns from different medical schools before disclosure. A similar process was carried out, asking respondents (i) whether the instructions were clear, (ii) if the items were comprehensible in light of their medical training, and (iii) if time spent answering was adequate.

#### Data collection and analysis

Medical schools' curricula were reviewed, allowing characterization of curricular content, timing and number of curricular units covering CS teaching.

An Exploratory Factorial Analysis (EFA) with varimax rotation was performed with the 34 items of the original questionnaire. The number of components used to create dimensions was determined by examination of the eigenvalues above 1, the Cattell scree plot and the Parallel Analysis <sup>19</sup>. Total and dimensional structures were tested for internal consistency using Cronbach's alpha reliability analysis. Concurrent validity was tested using total scores of the Portuguese version of the "Self-confidence in Using Psychosocial Skills Questionnaire" as a criterion<sup>18</sup>. Non-parametric analysis was used as the data were not normally distributed. Hypothesis testing was performed using Mann-Whitney U tests for independent samples. Statistical analysis was conducted using IBM Statistics SPSS 26.

#### Results

#### Sample

A total of 266 interns answered the questionnaire but only 162 completed all items. According to previously established eligibility criteria, 131 answers were eligible for analysis. Demographic data can be found in Table 1.

#### Questionnaire

Content validity was warranted by deriving the questions from established theoretical models <sup>3, 6, 12-16</sup> and by cross-reference with similar work in the published literature <sup>10, 20, 21</sup>, including previous studies in Portugal <sup>7, 17</sup>. Content analysis by a panel of experts ensured face validity since it was consensual that the questions were suitable for assessing interns' perception of preparedness regarding CS. After this qualitative analysis, one item was added and five items were excluded as they were repeatedly identified as less essential by the panel. Piloting respondents agreed the instructions were clear, the questions were comprehensible and time

spent answering the questionnaire was adequate, thus not resulting in further changes in the questionnaire.

EFA was performed for the purposes of data reduction to create subscales for subsequent analysis. The Kaiser-Meyer-Oklin (KMO) value was 0.91, exceeding the recommended value of 0.6<sup>22</sup> and Barlett's Test of Sphericity reached statistical significance (p<0.001), supporting the factorability of the correlation matrix <sup>23</sup>. EFA revealed the presence of four components with eigenvalues exceeding 1. To help establishing the correct number of factors to extract from the factorial analysis the Cattell's scree plot and a Parallel analysis <sup>19</sup> were used. This resulted in the extraction of three factors, which explained 63.97% of the total variance. Factor structures were studied by principal components method with varimax rotation. Criterion consisted of retaining items that showed strong factor loadings (>0.60) and eliminating items that loaded >0.30 with all factors. An exception was granted to one item which was not excluded due to its specific content and expected relevance for our country's (and, presumably, for other countries') medical education background (Table 3). The three factor structure matched the three domains proposed by the authors based on items content. The factors were named Core communication skills (F1) with 10 items, Breaking bad news (F2) with 7 items and Motivational interviewing (F3) with 5 items. Cronbach's alpha reliability analysis was preformed and all factors showed "very good" internal consistency with alphas ranging from 0.89 to  $0.94^{24}$ . All the three factors significantly (p < 0.01) and highly correlated with the instrument's total score, with Spearman's coefficients ranging from 0.82 to 0.91. Correlations between factors were moderate to high, ranging from 0.63 to 0.72 (p < 0.05). According to Loewenthals' criteria <sup>25</sup>, the questionnaire and the three subscales all showed good concurrent validity, with high, positive and significant correlation coefficients with the Portuguese version of the "Selfconfidence in Using Psychosocial Skills Questionnaire"<sup>18</sup>.

#### Communication skills curricula

Almost all medical schools provided a single curricular unit dedicated to CS teaching in the first three years of undergraduate training. Only one medical school offered a longitudinal integration of CS, with continued training throughout all the six years of the curriculum. Programs' content mainly focused on empathy, patient-centered care and basic interviewing skills. Almost 90% of participants were given practice-oriented training opportunities. Role play, watching and discussing didactic videos featuring CS and simulation with standardized patients were the most frequently reported training strategies. While supervised interviews with real patients was a common practice, most participants (33,4%) engaged on extracurricular activities concerning CS, mainly thematic workshops and seminars, among which breaking bad news was the most frequent topic, representing 37,5% of all extracurricular activities. Other topics included sign language, nonverbal communication, dealing with aggressive patients and dealing with patients with chronic pain.

#### Perceived preparedness

Table 4 presents the mean score of every item included in the final version of the questionnaire showing, in a scale of 1 to 6, preparedness rates as reported by participants. Most basic skills, as well as motivational interviewing skills were highly rated. Seven items scored below 4.0, including *Identifying and responding to the patient's emotions* from the *Core communication skills* subscale, and five different items from the *Breaking bad news* subscale, mainly related to addressing the patient's emotions and delivering the bad news (about a diagnosis, prognosis and death). The item *Communicating with speech impaired patients* was very low rated compared to all other items.

Overall, interns felt well-prepared on *Core communication skills* and least well-prepared for Breaking bad news. There were no significant differences between male and female participants and Pearson's correlation coefficient analysis did not show an association between preparedness and participants' age. However, subscale results varied significantly according to different teaching methods and training opportunities (Table 5). Interns who were offered a longitudinal integration of CS throughout undergraduate curriculum were more likely to feel prepared on *Core communication skills* and *Breaking bad news* than all the other colleagues. Similarly, practice-oriented training opportunities, particularly the use of standardized patients and real patient interviewing with feedback on CS, had a positive and significant effect on participants' perceived preparedness on all three subscales, but differences were mostly felt in the Core communication skills and Breaking bad news dimensions. Simulation with standardized patients, accessible in two medical schools across country, was the only training strategy that positively influenced preparedness on all three subscales. Watching and discussing didactic videos, role playing and real patient interviewing without feedback on CS had no significant effect on subscale results. Furthermore, there were no differences between the group that engaged in CS-oriented extracurricular activities and the one that did not. However, participants who attended extracurricular activities specifically involving breaking bad news reported significantly higher levels of preparedness in the homonymous subscale.

#### Discussion

This study intended to explore potential associations between academic curricula and medical interns' preparedness for practice. Overall, interns felt well-prepared by their undergraduate training in CS, with no differences between men and women. The topics they were more likely to feel prepared relate to core communication and interviewing skills. Conversely, perceived preparedness was low in items concerning dealing with emotion, breaking bad news, and most

of all communicating with speech impaired patients. We believe this is a reflection of curricular content and the different emphasis that has been placed on these topics. The fact that interns who attended extracurricular activities involving breaking bad news reported significantly higher levels of preparedness adds on to this. Accordingly, previous studies established that junior doctors were well prepared for basic skills, but highlighted the need to develop more challenging CS <sup>21, 26</sup> and, in a national study with medical residents, 91% of participants required complementary training on delivering bad news <sup>2</sup>. On the other hand, motivational interviewing was a consistently high rated domain and perceived preparedness was barely influenced by different teaching methods or training strategies, as opposed to the other subscales. Considering that curriculum coverage for this topic is very limited in most medical schools, it is possible that interns are overestimating their skills, and their real knowledge about motivational interviewing and its complexity is more limited than they perceive.

Our results suggest the existence of frailties in the curricular development of CS for the different medical schools. There were differences in the reported levels of preparedness between interns who were offered a longitudinal integration of CS throughout the curriculum and all the others. In general, where those differences occur, interns from the first felt better prepared. Longitudinal undergraduate medical training also included early contact with patients, and it was the only program to include CS assessment through Objective Structured Clinical Examinations (OSCE) <sup>17, 27</sup>. This data is in keeping with findings in the literature, as longitudinal integration of CS showed to be effective in improving confidence <sup>28, 29</sup>, performance and skill retention <sup>30</sup>. In line with previous findings, the lack of curriculum integration contributed to lower reported levels of preparedness <sup>31, 32</sup>.

Most interns were given practice-oriented training opportunities, which may have contributed to the overall high reported levels of preparedness, since CS programs with a substantial practical component have been associated with increased effectiveness <sup>33</sup> and

perceived preparedness <sup>9</sup>. Simulation with standardized patients and real patient interviewing with feedback on CS were the most valuable strategies to positively influence preparedness. Previous work has shown that programs combining patient-simulation strategies and feedback are more effective than those using purely didactic strategies <sup>34</sup>. Likewise, interacting with real patients has proved to reinforce students' ability to communicate <sup>35</sup> and to understand patient's illness <sup>36</sup>. Nevertheless, encouraging students' active participation is as essential as subsequent quality constructive feedback <sup>37</sup>, which should emphasize the discussion of specific features of communication rather than clinical content or pathology <sup>38</sup>. We found no evidence for the advantage of role play, didactic videos and patient-simulation with mannequins.

This study supports the need to review timing, content and methods of CS teaching in medical schools. Our results indicate that communication curricula should ideally be structured longitudinally, founded on a collaborative and integrative program across the undergraduate curriculum, allowing CS development along with new and advanced clinical skills. There remains a need to improve preparedness amongst interns in topics such as communication with speech impaired patients, dealing with negative emotion and breaking bad news. Careful consideration should be given to ensure that these topics are adequately covered in undergraduate medical education. Training strategies should stand on a strong experimental and practical component with continuous supervision and learner centered feedback. Efforts should be made to adopt such strategies in a customized and interactive format, tailored to medical students' different learning needs.

There are certain limitations in the study design which need to be addressed. The study is based on self-report measures rather than an objective assessment of interns' performance. Although we may assume that higher reported preparedness is associated with educational outcomes' achievement <sup>8</sup>, the level of Miller's pyramid this conforms with is undetermined <sup>39</sup>. To further expand the findings, it would be interesting to know if reported preparedness

reflected interns' actual behavior in clinical practice. Moreover, previous research with medical graduates evidenced high incidence of social desirability bias <sup>40</sup>, which may lead to an overestimation of perceived preparedness in CS. Also, interns' attitudes towards teaching and learning CS, a factor known for influencing skill retention <sup>31</sup>, was not accounted for. Despite the limited number of participants, the study's sample gathers interns from all Portuguese medical schools. Also, the proportion of male and female participants resembles the actual proportion of both genders in undergraduate medical training in Portugal. Therefore, it is expected that the sample is fairly representative of the total cohort. A considerable strength of the study was the validation of an original questionnaire. The preliminary psychometric analysis presented promising results, showing high reliability and very good construct and concurrent validity. In the future, it is our intention to perform a confirmatory factorial analysis with further item selection and improvement. It is our hope that this instrument will be useful in monitoring the quality of communication skills teaching in medical education.

Future research should further explore how different training strategies and teaching methods in CS programs can best match medical students' learning needs. Our results highlight the need to integrate CS teaching in undergraduate medical education, therefore paving the way for improvement and humanization in healthcare.

#### Conclusion

Given the current variability in CS undergraduate curricula, it is important to ascertain an educational framework to foster the development of effective CS. The results of this study support the expansion of an educational model based on integrated CS training throughout undergraduate medical curriculum. In order to enhance CS learning, adequate teaching methodologies should be foreseen and hands-on experience with continuous supervision and feedback to learners should be favored. Our study provides a framework for institutions that

aim to implement or to further develop CS curricula. It is our hope that the Portuguese experience will influence educational research in the future.

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#### **Disclosure statement**

The authors declare that they have no conflict of interest.

#### **Compliance with ethical standards**

The research was approved by the Coimbra Hospital and University Centre's ethics committee

prior to participants recruitment (Proc. CHUC-117-19).

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#### Tables

Gender (%)	Male	21.2
Gender (%)	Female	78.8
	Mean	25.1
Age (years)	Minimum	24
	Maximum	29
	UC	18.2
	UL	16.7
Madical calcal	NMS	15.9
Medical school (%)	UP	15.2
(70)	IBSAS	12.9
	UBI	12.1
	UM	9.1

Table 1. Participants' demographic data

UC: University of Coimbra; UL: University of Lisbon; NMS: NOVA Medical School; UP: University of Porto; IBSAS: Institute of Biomedical Sciences Abel Salazar; UBI: University of Beira Interior; UM: University of Minho.

Table 2. Commu	• .• 1•11		· · ·	4 11	· · ·
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%
84.8
72.7
53.0
37.1
34.8
29.5
10.6

CS: communication skills.

Item	F1	F2	F3	Observation
3. Using appropriate nonverbal behaviour	0.78			Included
9. Exploring the patient's psychological and social problems	0.71			Included
12. Closing the session	0.71		0.41	Included
2. Empathize	0.70			Included
4. Exploring the patient's perspective	0.69	0.38		Included
6. Initiating the session	0.69		0.39	Included
1. Active listening without judgment	0.63			Included
7. Gathering information and negotiate priorities	0.62		0.36	Included
5. Identifying and responding to the patient's emotions	0.61	0.47		Included
13. Addressing issues related to the patient's sexuality	0.59			Excluded <sup>†</sup>
16. Communicating with the patient's family or caregivers	0.58	0.48		Excluded <sup>†</sup>
8. Characterizing symptoms effectively	0.56		0.45	Excluded <sup>†</sup>
15.Communicating with speech impaired patients	0.55	0.49		Included §
14. Communicating with a sick child or adolescent	0.53	0.42		Excluded <sup>†</sup>
10. Achieving shared understanding of patient's clinical details	0.51	0.49	0.39	Excluded <sup>‡</sup>
19. Sharing information about an unpleasant diagnosis		0.83	0.30	Included
20. Sharing information about an unfavorable prognosis	0.33	0.81		Included
18. Uncovering what the patient already knows and what he wants to		0.74	0.31	Included
know 17. Setting up and initiate the interview		0.74	0.31	Included
23. Communicating the death of a loved one		0.74		Included
21. Adressing the patient's emotions with empathic responses	0.47	0.71		Included
22. Setting out a medical plan of action		0.65	0.49	Included
11. Achieving shared decision making	0.49	0.55	0.38	Excluded <sup>†‡</sup>
28. Rolling with resistance without judgement			0.79	Included
29. Avoiding an argument the may amplify resistance			0.76	Included
30. Support self-efficacy, valuing previous efforts to change behavior			0.71	Included
26. Accepting patient's perspective and empathize	0.39		0.68	Included
27. Developing discrepancies between the current behavior and the	0.34	0.43	0.67	Excluded <sup>‡</sup>
patient's priorities 25. Identifying the stage of change the patient is in			0.63	Included
24. Motivating the patient to change behaviour (eg.: stop smoking)	0.30		0.55	Excluded <sup>†</sup>

### Table 3. Questionnaire's factorial structure (varimax rotation)

Note: Only items showing loadings >0.60 are shown. † factor loading <0.60; § included due to its specific content; ‡ loads >0.30 with all factors.

Subscale	Item	Mean (STD)
Core communication	Empathize	4.95 (0.84)
skills	Initiating the session	4.95 (0.91)
	Active listening without judgment	4.83 (0.85)
	Closing the session	4.42 (1.01)
	Using appropriate nonverbal behaviour	4.36 (0.98)
	Exploring the patient's perspective	4.32 (0.88)
	Exploring the patient's psychological and social problems	4.15 (0.91)
	Gathering information and negotiate priorities	4.02 (0.97)
	Identifying and responding to the patient's emotions	3.89 (1.11)
	Communicating with speech impaired patients	2.22 (1.01)
	Total subscale	4.21 (0.66)
Breaking bad news	Uncovering what the patient already knows and what he wants to know	4.13 (0.99)
	Setting up and initiate the interview	4.03 (1.00)
	Setting out a medical plan of action	3.94 (0.91)
	Adressing the patient's emotions with empathic responses	3.76 (1.00)
	Sharing information about an unpleasant diagnosis	3.72 (1.03)
	Sharing information about an unfavorable prognosis	3.61 (1.09)
	Communicating the death of a loved one	3.00 (1.20)
	Total subscale	3.74 (0.84)
Motivational	Accepting patient's perspective and empathize	4.33 (0.89)
Interviewing	Support self-efficacy, valuing previous efforts to change behavior	4.22 (0.75)
	Avoiding an argument the may amplify resistance	4.16 (0.92)
	Identifying the stage of change the patient is in	4.13 (0.83)
	Rolling with resistance without judgement	4.03 (0.88)
	Total subscale	4.17 (0.66)

Table 4. Mean (standard deviation) scores of preparedness reported by participants (1= totally disagree; 6= totally agree)

Groups	F1 (p value)	F2 (p value)	F3 (p value)
Gender	0.430	0.556	0.783
Longitudinal integration of CS	0.001*	0.001*	0.900
No practical training opportunities	0.031*	0.039*	0.066
Standardized patients	0.020*	0.003*	0.010*
Real patient interviewing with feedback on CS	0.015*	0.008*	0.661
Extracurricular activities	0.590	0.054	0.550
Extracurricular activities – BBN	0.128	0.032*	0.879

Table 5. Subscale rating differences between groups according to gender, teaching method, training strategies (only statistically significant differences are presented) and extracurricular activities.

\**p*<0.05; CS: communication skills; BBN: breaking bad news.

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## **Teaching and Learning in Medicine**

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- Validation
- Investigations
- Educational Case Reports
- Observations

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  - Findings (Briefly state the findings of the investigation)
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- Should contain a structured abstract of 500 words. Abstract should be free of references or abbreviations, using the following format presented below. The body of the manuscript need not conform to the structure of the abstract.
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  - Context (Briefly summarize the context in which the intervention was implemented)
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  - Lessons Learned (Briefly summarize the lessons learned that other educators can use when attempting to address a similar practical problem – note this is not a summary of impact, but a reflection on what was learned about implementing the intervention)
- Should contain between 3 and 5 keywords. Read <u>making your article more discoverable</u>, including information on choosing a title and search engine optimization.
- The practitioner's personal experience with teaching and learning can provide valuable information about the context to which some researchers expect their findings to apply. Educational Case Reports present detailed reflections on educational interventions, including novel approaches to instruction, assessment, and admissions/selection. These articles document in-depth what was tried, why, and under what conditions and present a process and outcome analysis of impact as well as lessons learned. Taken together, Educational Case Reports should reveal trends in educational need and everyday factors that influence what and how health professionals learn. Educational Case Reports go beyond "Did it work?" to explore how interventions function and the boundaries of their scalability (see Haji, Morin, & Parker, 2013 "Rethinking programme evaluation").

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- Should be written with the following elements in the following order: title page; abstract; keywords; main text; acknowledgments; declaration of interest statement; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figures; figure captions (as a list)
- Should contain a structured abstract of 500 words. Abstract should be free of references or abbreviations, using the following format presented below. The body of the manuscript need not conform to the structure of the abstract.
  - Issue (Briefly state the unaddressed issue to be discussed in the article)
  - Evidence (Briefly summarize the evidence that the issue exists, is important, and has not yet been adequately addressed)
  - Implications (Briefly present the implications of a novel analysis this evidence for further investigation or intervention)
- Should contain between 3 and 5 keywords. Read <u>making your article more discoverable</u>, including information on choosing a title and search engine optimization.
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## Questionário online

## Perceção de preparação em Comunicação Clínica

O presente questionário integra um projeto de investigação que tem por objetivo compreender de que forma os jovens médicos sentem que o seu curso de medicina os preparou para aplicar, na prática, as competências de comunicação clínica.

Destina-se a Médicos Internos de Formação Geral que tenham completado o seu curso de medicina numa Universidade portuguesa. As questões colocadas ao longo do questionário encontram-se enquadrados na principal literatura científica sobre o tema.

O seu preenchimento completo demora cerca de 12 minutos. As respostas são anónimas e os investigadores garantem a total confidencialidade dos participantes.

P'la equipa de investigação,

Diana Moura

#### Consentimento Informado

Título do projeto: "Preparação para a prática clínica: perceção de competências de comunicação clínica em Internos de Formação Geral"

Se aceitar participar neste estudo, ser-lhe-á solicitado que complete dois questionários de autorresposta. O primeiro questionário pretende explorar a sua perceção de preparação para aplicar técnicas de comunicação clínica nos primeiros anos de prática médica. O segundo questionário trata-se de uma escala para aferir a empatia. Estima-se que o tempo de preenchimento total seja de **aproximadamente 12 minutos**.

A sua participação é voluntária e pode retirar o seu consentimento em qualquer altura, bastando informar o investigador assim que decidir retirar o mesmo.

As suas respostas manter-se-ão confidenciais, de acordo com os regulamentos e leis aplicáveis. os resultados serão tratados coletivamente e usados exclusivamente para fins de investigação.

Este estudo é da iniciativa do investigador e, por isso, se solicita a sua participação sem uma compensação financeira para a sua execução. Não haverá qualquer custo para o participante pela sua participação neste estudo.

Se tiver perguntas relativas aos seus direitos como participante deste estudo, deve contactar: diianamoura@gmail.com

\*Declaro que aceito participar neste estudo

Aceito

#### 1. Dados iniciais

*Sexo
Feminino
O Masculino
Outro
*Idade
*Forma de ingresso no Curso de Medicina
O Concurso nacional de acesso (contingente geral)
🔾 Concurso especial para titulares com grau de Licenciado
Regimes especiais
*Faculdade onde estudou Medicina:
Por favor, selecione
*O curso de Medicina da sua faculdade incluía Unidades Curriculares (UC) dedicadas à Comunicação Clínica?
Sim, <b>uma UC</b> dedicava-se ao ensino de competências de comunicação
Sim, <b>mais do que uma UC</b> se dedicava ao ensino de competências de comunicação
Não, nenhuma
*Na(s) Unidade(s) Curricular(es) dedicadas à Comunicação Clínica, teve oportunidade de:
Selecione todas as opções que se apliquem
Ver vídeos exemplificativos das técnicas de comunicação
Prática simulada com manequins ou equivalente
Praticar role play (simulação de entrevista clínica entre alunos)
Realizar entrevista clínica com atores/doentes simulados
Realizar entrevista clínica com doentes reais, <b>com feedback</b> sobre o desempenho na área da comunicação
Realizar entrevista clínica com doentes reais, <b>sem feedback</b> sobre o desempenho na área da comunicação
Nenhuma das anteriores

*Teve oportunidade de participar numa experiência formativa extracurricular que tenha acrescentado à sua formação em comunicação clínica? (Unidade curricular
opcional, workshop, palestra)

 $\bigcirc$  Sim

🔘 Não

Se respondeu **Sim**, por favor especifique:

## 2. Perceção de preparação para a prática clínica

#### \*Exprima o seu grau de concordância com as seguintes afirmações:

#### Após terminar o curso de medicina senti-me preparado para...

	Discordo totalmente	Discordo bastante	Discordo	Concordo	Concordo bastante	Concordo totalmente
Escutar e mostrar atenção, sem fazer juízos de valor						
Demonstrar empatia						
Interpretar e adequar a linguagem não-verbal						
Obter a perspetiva do doente em relação à sua doença						
Identificar e responder a emoções do doente durante a entrevista clínica (p.ex: doente que chora, doente que demonstra raiva ou medo)						
Receber o doente e iniciar a entrevista clínica						
Listar todas as preocupações e negociar prioridades, de acordo com o tempo disponível						
Caracterizar os sintomas de forma eficaz						
Identificar problemas de natureza psicológica e social						
Partilhar informação com o doente acerca do seu diagnóstico/contexto clínico						
Envolver o doente no plano terapêutico, com base num modelo de decisão partilhada						
Encerrar a entrevista clínica						
Abordar temas relacionados com a sexualidade do doente						
Comunicar com uma criança ou adolescente doente						
Comunicar com doentes com necessidades especiais (p.ex.: surdos, mudos, língua estrangeira)						
Comunicar com a família/cuidador de um doente						

### 3. Comunicar más notícias

\*Exprima o seu grau de concordância com as seguintes afirmações:

No que respeita às técnicas específicas de comunicação de más notícias, sinto-me preparado para...

	Discordo totalmente	Discordo bastante	Discordo	Concordo	Concordo bastante	Concordo totalmente
Preparar o contexto e iniciar o diálogo						
Descobrir o que o doente já sabe e o que deseja saber						
Partilhar informação acerca de um diagnóstico difícil (p.e: cancro, dor crónica)						
Partilhar informação acerca de um prognóstico desfavorável						
Responder adequadamente às emoções expressas						
Estabelecer um plano de seguimento						
Comunicar a morte de um doente à família						

### 4. Entrevista Motivacional e mudança comportamental

#### \*Exprima o seu grau de concordância com as seguintes afirmações:

No que respeita à Entrevista Motivacional, sinto-me preparado para...

	Discordo totalmente	Discordo bastante	Discordo	Concordo	Concordo bastante	Concordo totalmente
Motivar o doente e promover um processo de mudança de um determinado comportamento (p.e: deixar de fumar, aderir ao tratamento, praticar exercício físico)						
Identificar o estadio de mudança em que se encontra o doente						
Aceitar a postura do doente, procurando compreendê-lo sem fazer juízos de valor						
Sublinhar a discrepância entre o comportamento do doente e as suas prioridades, valores e objetivos						
Recuar quando o doente exprime resistência à mudança, reconhecendo que mudar é difícil						
Evitar a discussão argumentativa amplificadora de resistência						
Promover a autoeficácia, valorizando tentativas prévias para mudar o comportamento						

Escala de avaliação de autoconfiança quanto às competências de comunicação clínica

*Qual	0	seu	grau	de	confiance	a em:

	1 - Nada confiante	2	3	4	5	6	7 - Totalmente confiante
Evitar interromper o doente?							
Evitar que o doente sinta que está a ser apressado?							
Conseguir passar da "agenda" do doente para a sua própria "agenda" no momento certo?							
Conseguir manter o curso da entrevista?							
Fornecer uma estrutura adequada à consulta?							
Identificar a comunicação não-verbal do doente?							
Construir uma boa relação clínica com o doente?							
Lidar assertivamente com emoções?							
Identificar sentimentos não expressos pelo doente? (ex: "Parece ter sido uma coisa triste para o Sr.")							
Reconhecer os seus próprios sentimentos em relação ao doente? (Negativos ou positivos)							
Motivar um doente para alterar estilos de vida?							
Dar más notícias de uma forma adequada?							
Conseguir comunicar com um doente impossibilitado de falar?							
Lidar com um doente ansioso ou depressivo?							
Estabelecer uma relação adequada com a família?							
Estabelecer uma boa relação com crianças e/ou adolescentes?							
Em estabelecer uma boa relação com idosos?							

Muito obrigada pela sua disponibilidade e colaboração!

P'la equipa de investigação,

Diana Moura

## Parecer da Comissão de Ética

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			Proc. N.º CHUC-117-19	
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		A Comissão	o de Ética para a Saúde do Cl	HUC, E.P.E.
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			Prot Doutor João Pedroso de Presidente	Lima
	CES da CHUC: Prot. Douto Dr. José António Feo. Rev.	I I JODO Pedroso de Lima, Pol. Dautora Margari Re. Miguel Femera, y. Dr. Pedro Lopez, Dro, Ten	Presidente	
	CES do CHUC: Prot. Douto Dr. José António Feio, Rev.	Pa. Miguel Perrena y, Dr. Pearo Lopes, Dra, Sev	Presidente	

Participações no âmbito do Mestrado em Comunicação Clínica

## II Congresso Nacional de Comunicação Clínica em Cuidados de Saúde

### Lisboa, 2019

# Comunicação clínica nas escolas médicas portuguesas – avaliação da eficácia de dois programas

Diana Moura<sup>1,2</sup>, Nuno Madeira<sup>2</sup>, Margarida Figueiredo-Braga<sup>3,4</sup>

1Faculdade de Medicina, Universidade do Porto

2Instituto de Psicologia Médica, Faculdade de Medicina, Universidade de Coimbra

3Departamento de Neurociências Clínicas e Saúde Mental, Faculdade de Medicina, Universidade do Porto

4I3S - Instituto de Investigação e Inovação em Saúde, Universidade do Porto

**Introdução:** O ensino de competências de comunicação clínica é considerado um componente essencial da educação médica pré-graduada em diversos países. Nos últimos anos, em Portugal, tem sido atribuída uma importância crescente a este tema, que gradualmente tem integrado o programa curricular de várias escolas médicas. Diversas metodologias de ensino têm sido colocadas em prática, avaliadas pela análise do desempenho dos estudantes, através de métodos de avaliação que englobam a dimensão comportamental da interação estudante-doente, a par dos conhecimentos teóricos.

**Objetivo:** O projeto pretende avaliar os conhecimentos e a capacidade de aplicação prática das estratégias aprendidas, em estudantes submetidos ao ensino de competências de comunicação clínica em duas escolas médicas portuguesas. Como objetivo secundário, os autores pretendem validar a ferramenta de avaliação "Objective Structured Video Exam – OSVE" (Humphris & Kaney, 2000) para aplicação numa população de estudantes de medicina no ensino prégraduado.

**Métodos:** Os estudantes serão submetidos a uma avaliação estandardizada, consistindo numa versão adaptada do OSVE, que requer a visualização de uma entrevista clínica simulada prégravada em vídeo e posterior identificação de estratégias de comunicação utilizadas, discussão do seu impacto na interação observada e sugestão de alternativas.

**Resultados/Hipótese:** Programas curriculares com diferentes métodos de ensino e aplicados em diferentes fases do ensino médico pré-graduado podem influenciar o conhecimento e desempenho dos estudantes nos vários domínios da comunicação clínica. Os resultados deste projeto poderão facilitar o desenho de unidades curriculares de comunicação clínica capazes de influenciar a capacidade de comunicação dos futuros médicos e adequadas ao contexto das diferentes escolas médicas portuguesas.

## International Conference on Communication in Healthcare

San Diego, 2019

# One size does not fit all: teaching and assessment of clinical communication skills in Portuguese medical schools

Diana Moura<sup>1,2</sup>, Nuno Madeira<sup>2</sup>, Margarida Figueiredo-Braga<sup>3,4</sup>

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2Institute of Psychological Medicine, Faculty of Medicine, Coimbra University, Portugal
3Department of Clinical Neurosciences and Mental Health, Faculty of Medicine, Porto University, Portugal
4I3S - Instituto de Investigação e Inovação em Saúde, University of Porto, Portugal

**Introduction – Institutional Context:** The teaching of clinical communication skills (CCS) has been consistently recognized as an essential component of undergraduate medical education in many countries. CCS were once considered a minor subject in Portuguese medical training, but in recent years more attention has been drawn to this core clinical skill, which has been gradually included in undergraduate curricula. Different medical faculties are currently applying different teaching and evaluation methods for CCS learning with scarce common outcome-based research.

**Introduction – Communication Skills Assessment Methods:** Several methods have been used in CCS acquisition assessment and there is little agreement regarding ideal evaluation tools. Skills that require performance are difficult to objectively assess and current methods are designed to conform to the desired level of Miller's pyramid. These methods aim to evaluate cognitive and behavioral dimensions of student-patient interaction, using performance evaluation as well as theoretical knowledge testing.

**Objectives:** The aim of our project is to evaluate medical student's knowledge and understanding of CCS in two different Portuguese faculties applying two CCS teaching programs. We also aim to validate the Objective Structured Video Exam - OSVE (Humphris and Kaney, 2000) tool for the purpose of assessing undergraduate medical students learning CCS.

**Methods (Participants, Instruments, Data collection):** In this study, undergraduate medical students from two distinct faculties will be submitted to a standardized assessment of CCS. Eligible students include those who have just finished the CCS course, as well as students in their last year of undergraduate medical education.

An adapted version of the Objective Structured Video Exam - OSVE (Humphris and Kaney, 2000) will be used: after watching a video of a simulated doctor-patient interaction, students will be systematically required to recognize and list the communication strategies, discuss their impact on the observed interaction and they will be asked to suggest alternative skills that could be used in the scenario.

**Hypothesis:** We hypothesize that different CCS courses, with different teaching processes and within a different time range, may influence medical student's understanding and performance of CCS, as well as the persistence of learned abilities. Our results will permit to design CCS courses eligible for use in different medical schools.

## International Conference on Communication in Healthcare

Online conference, 2020

# Teaching and learning communication skills in Portuguese medical schools: a critical overview

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**Background:** The teaching of communication skills (CS) has been consistently recognized as an essential component of undergraduate medical education. In Portugal, this core clinical skill has been gradually included in undergraduate curricula during the last decades. Our aim is to provide an overview on the methods of teaching CS to Portuguese medical students, identifying the current academic curricula and teaching methods in order to inform new and better programs.

**Methods:** In this cross-sectional study, first year residents from all Portuguese medical schools answered a survey on CS teaching strategies and curricular contents during their undergraduate training. The results are followed by a critical review of relevant studies on CS teaching methods.

**Findings:** Our study discusses the goals or content of the curricula, time spent on communication skills training and methods used, appraised by first year medical residents. Programs' content mostly focused on empathy, interviewing skills and patient-centered care. The time spent in CS teaching and training was seldom reported. Only two faculties offered an integrated approach for CS learning. Most programs relied on lectures and group work, role-play with peers or standardized patients, objective assessment and feedback were less frequent. Although interviewing real patients was a common practice, most participants did not receive feedback on the quality of their CS.

**Discussion:** Currently, medical schools apply different teaching methods and there is scarce common outcome-based research. Studies show that oral presentations are unlikely to change behavior. Group work has been shown to enhance retention of knowledge and skills, however there was no clear evidence that this strategy is effective for CS. Best practices recommend to practice communication in constructive and supportive environments. Portuguese training programs should further emphasize active, practice-oriented strategies, combined with feedback. Our results will assist more consistent CS programs, eligible across all the medical schools in the country.



**Diana** Martinho de Moura

> DATA DE NASCIMENTO: 18/09/1991

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Género: Feminino

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### **EXPERIÊNCIA PROFISSIONAL**

01/01/2016 - 31/12/2016

Interna do Ano Comum Centro Hospitalar e Universitário do Porto

Porto, Portugal

#### 01/01/2017 - ATUAL

Interna de Formação Específica em Psiquiatria Centro Hospitalar e Universitário de Coimbra

Coimbra, Portugal

#### 01/09/2017 - ATUAL

Assistente convidada Instituto de Psicologia Médica, Faculdade de Medicina da Universidade de Coimbra

#### 01/11/2018 - ATUAL

Formadora - Psiquiatria e Saúde Mental Exame da Especialidade

Coimbra, Portugal

## EDUCAÇÃO E FORMAÇÃO

01/09/2009 - 31/07/2015 - Porto, Portugal

Mestre em Medicina Faculdade de Medicina da Universidade do Porto

#### 01/10/2017 - 31/08/2018 - Coimbra, Portugal

Pós-graduação em Psicoterapia Cognitivo-comportamental InsPsic - Instituto Português de Psicologia e Ciências

08/07/2018 - 12/07/2018 - Braga, Portugal

Curso de Psicofarmacologia Clínica Applied Clinical Psychopharmacology

#### 25/10/2018 - 26/10/2018 - Madrid, Espanha

Curso de Eletroconvulsivoterapia Curso Teórico-práctico Intensivo de Actualización en Terapia Electroconvulsiva

#### 01/09/2018 - ATUAL - Porto, Portugal

Mestrado em Comunicação Clínica Faculdade de Medicina da Universidade do Porto

## COMPETÊNCIAS LINGUÍSTICAS

## LÍNGUA(S) MATERNA(S): português

inglês

Compreensão oral C2	Leitura C2	Produção oral C2	Interação oral C2	Escrever C2
C2				

FACULDADE DE MEDICINA