10TH INTERNATIONAL CONFERENCE OF EDUCATION, RESEARCH AND INNOVATION

CONFERENCE PROCEEDINGS

SEVILLE (SPAIN) 16-18 NOVEMBER 2017
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Virtual and Augmented Reality
Virtual Learning Environments (VLE)
Vocational training
Web 2.0 and Social Networking
Women and minorities in science and technology
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This USB Flash drive includes all presented papers at ICERI2017 conference. It has been formatted similarly to the conference Web site in order to keep a familiar environment and to provide access to the papers through your default Web browser (open the file named "ICERI2017_Proceedings.html").

An Author Index, a Session Index, and the Technical Program are included in HTML format to aid you in finding conference papers. Using these HTML files as a starting point, you can access other useful information related to the conference.

The links in the Session List jump to the corresponding location in the Technical Program. The links in the Technical Program and the Author Index open the selected paper in a new window. These links are located on the titles of the papers and the Technical Program or Author Index window remains open.

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3. Type the search text, click Search button, and then proceed with your query.

For Acrobat 9 and later:
1. In the “Edit” menu, choose “Search”. You may receive a message from Acrobat asking if it is safe to load the Catalog Index. Click “Load”.
2. A new window will appear with search options. Enter your search terms and proceed with your search as usual.

For Acrobat 8:
1. Open the Search window, type the words you want to find, and then click Use Advanced Search Options (near the bottom of the window).
2. For Look In, choose Select Index.
3. In the Index Selection dialog box, select an index, if the one you want to search is available, or click Add and then locate and select the index to be searched, and click Open. Repeat as needed until all the indexes you want to search are selected.
4. Click OK to close the Index Selection dialog box, and then choose Currently Selected Indexes on the Look In pop-up menu.
5. Proceed with your search as usual, selecting other options you want to apply, and click Search.

For Acrobat 7 and earlier:
1. In the “Edit” menu, choose “Full Text Search”.
2. A new window will appear with search options. Enter your search terms and proceed with your search as usual.
ATTEMPT OF COMPARISON OF ATTITUDES TOWARDS DEVELOPMENT OF COMMUNICATION SKILLS AMONG POLISH AND SWISS STUDENTS OF MEDICAL UNIVERSITIES

Lucyna Iwanow, Mariusz Panczyk, Aleksander Zarzeka, Ilona Cieślak, Mariusz Jaworski, Joanna Gotlib

Division of Teaching and Outcomes of Education, Faculty of Health Sciences, Medical University of Warsaw (POLAND)

Abstract

Introduction: A high level of communication skills of medical personnel significantly improves the effectiveness of treatment managed by an interdisciplinary team, quality of health care, including patient and personnel safety, as well as patient and family satisfaction with health services.

Aim: The study attempted to evaluate attitudes towards development of communication skills among Polish and Swiss students of medical universities

Material and methods: The study enrolled a total of 343 students (women: n=278, 81%): from Poland (n=229; 66.8%) and Switzerland (n=114, 33.2%, University of Basel). Polish students represented seven universities, the largest number of students being from Medical University of Warsaw (n=143, 41.7%), Collegium Medicum in Bydgoszcz (n=53, 15.5%), and the University of Rzeszów (n=22, 6.4%). The respondents studied at a total of 11 faculties, with students of medicine comprising the largest proportion (n=137, 39.9%), followed by students of nursing (n=77, 22.4%) and obstetrics (n=35, 10.2%). Most respondents studied full-time (n=332, 96.8%) and were first-cycle students (n=222, 64.7%). Subgroups comprising the first-year students (n=117, 34.1%), second-year students (n=77, 22.4%), and third-year students (n=68, 19.8%) were most numerous. Mean age of the study group amounted to 22.63 years (median: 22; min. 19, max. 55, SD: 2.75). The study was conducted with the use of a standardized questionnaire Communication Skills Attitude Scale (CSAS). The survey was performed in March and April 2017 using two electronic questionnaires: Polish and English language versions.

Results: A vast majority of the respondents (n=338, 98.5%) agreed that they need to have good communication skills in order to be able to do their work well. A vast majority of students (n=250, 72.9%) believed that acquiring communication skills is as important as learning medicine and it develops team working skills (n=306, 89.2%). When asked to self-assess their communication skills, students rated their competence related to communication with patients and other staff members as good or very good (n=235, 68.5% and n=222, 64.7%, respectively).

Conclusion: The study group agreed that education in communication skills is very important and crucial for taking up employment in a health profession. Therefore, despite a high level of self-assessment, it needs to be considered whether to include communication-related issues in the teaching contents.

Keywords: skills, curriculum, soft skills, Communication Skills Scale.

1 INTRODUCTION

In the global scientific literature one can find numerous reports highlighting that effective communication between members of the care team and the patient and their family is required to provide high quality care [1-11].

Communication skills, by their nature, are one of the most desirable competences in the labor market in the medical professions[9]. Employers are looking for employees with communication skills such as making contacts, maintaining relationships or working in an interdisciplinary team. [8,9,12].

Correct communication with other members of medical staff, the patient and his family and within the interdisciplinary team is important for the correct functioning of the therapeutic process. The communication competence of the staff also influences the image of the therapeutic agent and the quality of care received [6].
Contemporary literature indicates insufficient level of cooperation in interdisciplinary teams and inadequate levels of social competence, including communication competencies [1, 2, 4, 10, 13].

Education programs in medical and health sciences lack emphasis on social skills, including communication. However, more and more content from this range gets included in educational programs. Global literature propounds that greater emphasis should be placed not only on communication skills development but also on students' positive attitudes towards these skills [14-16]. It is important that students develop positive attitudes towards communication skills through education. It is possible that in the future this will influence the willingness to develop these competences and to increase their level.

The Communication Skills Attitude Scale (CSAS) is the most commonly used standardized tool for measuring attitudes towards communicative competence. [17-22]. It was created by Rees et al., from the Pensula Medical School in the United Kingdom to examine attitudes of medical students, and their communication skills over the years of study. An additional motive behind the creation of this tool was the modification of the network of occupational therapies, taking into account subjects of broadly understood social competences, including communication. Therefore, the authors decided to design the study using the CSAS. This tool will allow to compare the obtained results with other student research and medical staff [23].

Due to the fact that CSAS has good psychometric characteristics in terms of reliability and accuracy, it is the most widely used research tool to measure attitudes towards communicative competence by researchers around the world. In addition, this scale has been adapted for various fields of study in the field of medical and health sciences.

2 AIM

The study attempted to evaluate attitudes towards development of communication skills among Polish and Swiss students of medical universities.

3 MATERIAL AND METHODS

343 students (women: n=229, 81%) participated in the pilot study. The study group originated from two countries - Poland (n=229, 81%) and Switzerland (n=114, 33.2%). Polish students represented seven universities, among which the largest group was composed of people from Medical University of Warsaw (n=143, 41.7%), Collegium Medicum in Bydgoszcz (n=53, 15.5%) and the University of Rzeszów (n=22, 6.4%). The Swiss respondents were entirely from the University of Basel. The respondents represented eleven fields of study, the largest groups of each were medical students (n=137, 39.9%), nursing students (n=77, 22.4%) and obstetrics students (n=35, 10.2%). The majority of people studied in the stationary mode (n=332, 96.8%) and in the first degree (n=222, 64.7%). The study group was mainly composed of 1st year students (n=117, 34.1%), 2nd year students (n=77, 22.4%) and 3rd years students (n=68, 19.8%). The average age was 22.63 years (median: 22, min 19, max 55, SD: 2.75).

The study was conducted using a standardized Communication Skills Attitude Scale (CSAS) [23]. The questionnaire consists of 26 statements concerning attitudes towards the science of communicative competence in medical professions assessed in the Likert scale of 5 (from 1 - strongly disagree, 5 - strongly agree). The scale is divided into two subscales - positive (PAS) and negative (NAS). Thirteen statements indicate the attitude approving communication skills in the profession of nurse, the other thirteen opposite.

The CSAS has been supplemented by the authors with four self-assessment questions. The respondents were asked to assess their level of communicative ability in relation to four groups: the patient, the patient's family, the other members of the team in which they work, and the interdisciplinary team.

The study was conducted in March and April 2017 by two electronic questionnaires - in Polish and in English.

The obtained results for individual scale items were elaborated by means of descriptive statistics methods, and the total score was calculated according to the key. Calculations were made using Excel spreadsheet.
4 RESULTS

The students presented a positive attitude towards the science of communication competence (average score of CSAS for Polish students 90/130, for Swiss students 91.5 / 130). It's been observed that respondents from Poland obtained slightly lower results than respondents from Switzerland (88.9 vs 90.4, p <0.001). In addition, the respondents highly rated their communication skills (average 63.3% of respondents rated their communication skills as good or very good), but the results in this field were comparable in both groups.

Detailed results on students’ attitudes towards the science of communicative competence are presented in Table 1.

<table>
<thead>
<tr>
<th>Subscale/Content statement</th>
<th>Poland M±SD</th>
<th>Poland Median</th>
<th>University of Basel M±SD</th>
<th>University of Basel Median</th>
<th>p*</th>
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<td>PAS: positive attitude scale</td>
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<td>4. Developing my communication skills is just as important as developing my knowledge of medicine</td>
<td>2.7 ± 0.58</td>
<td>3.0</td>
<td>2.5 ± 0.73</td>
<td>3.0</td>
<td>0.000</td>
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<tr>
<td>5. Learning communication skills has helped or will help me respect patients</td>
<td>2.8 ± 0.52</td>
<td>3.0</td>
<td>2.7 ± 0.61</td>
<td>3.0</td>
<td>0.039</td>
</tr>
<tr>
<td>7. Learning communication skills is interesting</td>
<td>2.5 ± 0.70</td>
<td>3.0</td>
<td>2.6 ± 0.56</td>
<td>3.0</td>
<td>0.283</td>
</tr>
<tr>
<td>9. Learning communication skills has helped or will help facilitate my team-working skills</td>
<td>3.0 ± 0.25</td>
<td>3.0</td>
<td>2.7 ± 0.56</td>
<td>3.0</td>
<td>0.000</td>
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<tr>
<td>10. Learning communication skills has improved my ability to communicate with patients</td>
<td>3.0 ± 0.18</td>
<td>3.0</td>
<td>2.7 ± 0.45</td>
<td>3.0</td>
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<td>12. Learning communication skills is fun</td>
<td>2.1 ± 0.74</td>
<td>2.0</td>
<td>2.1 ± 0.75</td>
<td>2.0</td>
<td>0.883</td>
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<td>14. Learning communication skills has helped or will help me respect my colleagues</td>
<td>2.7 ± 0.64</td>
<td>3.0</td>
<td>2.3 ± 0.76</td>
<td>2.0</td>
<td>0.000</td>
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<tr>
<td>16. Learning communication skills has helped or will help me recognize patients' rights regarding confidentiality and informed consent</td>
<td>2.4 ± 0.75</td>
<td>3.0</td>
<td>2.6 ± 0.62</td>
<td>3.0</td>
<td>0.021</td>
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<td>18. When applying for medicine, I thought it was a really good idea to learn communication skills</td>
<td>1.8 ± 0.87</td>
<td>2.0</td>
<td>2.2 ± 0.83</td>
<td>2.0</td>
<td>0.000</td>
</tr>
<tr>
<td>21. I think it’s really useful learning communication skills on the medical degree</td>
<td>2.9 ± 0.36</td>
<td>3.0</td>
<td>2.9 ± 0.33</td>
<td>3.0</td>
<td>0.661</td>
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<tr>
<td>22. My ability to pass exams will get me through medical school rather than my ability to communicate</td>
<td>2.2 ± 0.82</td>
<td>2.0</td>
<td>2.6 ± 0.75</td>
<td>3.0</td>
<td>0.000</td>
</tr>
<tr>
<td>23. Learning communication skills is applicable to learning medicine</td>
<td>2.2 ± 0.72</td>
<td>2.0</td>
<td>2.2 ± 0.72</td>
<td>2.0</td>
<td>0.906</td>
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<td>25. Learning communication skills is important because my ability to communicate is a lifelong skill</td>
<td>2.8 ± 0.47</td>
<td>3.0</td>
<td>2.9 ± 0.36</td>
<td>3.0</td>
<td>0.229</td>
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<td>NAS: negative attitude scale</td>
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<tr>
<td>1. In order to be a good practitioner I must have good communication skills</td>
<td>3.0 ± 0.15</td>
<td>3.0</td>
<td>3.0 ± 0.16</td>
<td>3.0</td>
<td>0.205</td>
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<tr>
<td>2. I can't see the point in learning communication skills</td>
<td>1.1 ± 0.34</td>
<td>1.0</td>
<td>1.1 ± 0.42</td>
<td>1.0</td>
<td>0.211</td>
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<tr>
<td>3. Nobody is going to fail their medical degree for having poor communication skills</td>
<td>1.7 ± 0.72</td>
<td>2.0</td>
<td>2.1 ± 0.89</td>
<td>2.0</td>
<td>0.000</td>
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<tr>
<td>6. I haven't got time to learn communication skills</td>
<td>1.6 ± 0.84</td>
<td>1.0</td>
<td>1.4 ± 0.61</td>
<td>1.0</td>
<td>0.006</td>
</tr>
<tr>
<td>8. I can't be bothered to turn up to sessions on communication skills</td>
<td>1.4 ± 0.62</td>
<td>1.0</td>
<td>1.6 ± 0.68</td>
<td>1.0</td>
<td>0.002</td>
</tr>
<tr>
<td>11. Communication skills teaching states the obvious and then complicates it</td>
<td>2.3 ± 0.75</td>
<td>3.0</td>
<td>1.8 ± 0.78</td>
<td>2.0</td>
<td>0.000</td>
</tr>
<tr>
<td>13. Learning communication skills is too easy</td>
<td>1.9 ± 0.77</td>
<td>2.0</td>
<td>1.4 ± 0.63</td>
<td>1.0</td>
<td>0.000</td>
</tr>
</tbody>
</table>
15. I find it difficult to trust information about communication skills given to me by non-clinical lecturers  
   $1.3 \pm 0.62$  $1.0$  $1.5 \pm 0.78$  $1.0$  $0.103$

17. Communication skills teaching would have a better image if it sounded more like a science subject  
   $2.2 \pm 0.81$  $2.0$  $1.6 \pm 0.80$  $1.0$  $0.000$

19. I don't need good communication skills to be a practitioner  
   $1.2 \pm 0.52$  $1.0$  $1.1 \pm 0.42$  $1.0$  $0.010$

20. I find it hard to admit to having some problems with my communication skills  
   $1.8 \pm 0.87$  $1.0$  $1.7 \pm 0.76$  $1.0$  $0.494$

24. I find it difficult to take communication skills learning seriously  
   $1.6 \pm 0.80$  $1.0$  $1.5 \pm 0.75$  $1.0$  $0.038$

26. Communication skills learning should be left to psychology students, not medical students  
   $1.2 \pm 0.49$  $1.0$  $1.0 \pm 0.24$  $1.0$  $0.007$

CSAS summary result  
   $88.9 \pm 4.99$  $90.0$  $90.4 \pm 5.50$  $91.5$  $0.002$

* Mann-Whitney U test

5 DISCUSSION

The modern healthcare model and the management of medical facilities puts great emphasis on broadly understood social skills, including communication skills. Numerous publications emphasize how important is the communication with the patient and their family, as well as in the nursing and interdisciplinary teams. These items also indicate that the communication among the members of the therapeutic team is unsatisfactory. It is one of the main causes of medical errors and consequently leads to unsatisfactory levels of safety for both the patient and health care workers [5,7,10,24,25].

The Communication Skills Attitude Scale (CSAS) is the most popular standardized tool for measuring attitudes towards communication skills. [23]. Due to its good psychometric parameters and access to many language versions, this scale can be considered an international tool to compare results between different countries and students in the fields of medicine and health sciences.[17-22, 26-35].

Initially, this tool was intended only for medical students, but over time it was also validated for dental students, [34, 36], dietetics students, [19], pedagogic students [21] and resident doctors [37]. At the moment there is one validated version for nursing students in the world [18].

The authors of the study did not find publications that would describe attitudes towards the science of communication competence. However, there are many works in the field of soft skills, including social skills, among nurses. [5-9, 24,38].

The survey is one of the first to be based on the Polish version of CSAS. It is also one of few publications in the world that investigates attitudes towards the science of communication competence among nursing students. The work is a pilot study and forms part of the publishing cycle of the Polish Language Assessment Scale for Communication Skills for nurses and nursing students.

The research group presented positive attitudes towards the study of communication competences, recognizing that they are important to acquire and develop over the course of their studies and their work in the profession. Swiss students presented slightly higher results than students from Poland (p <0.001). Students rated their own competence in communication. It was interesting that both groups of students have underestimated their ability to communicate with the patient's family. Almost every fifth Swiss student (18.42%) and almost every eighth Polish (13.10%). Respondents from Poland (7.42%) rated their communication skills with the other members of the therapeutic team as worse than those surveyed in Switzerland (1.75%), responding that they have inferior level of respective skills. The obtained results confirm the appropriateness of early implementation of elements group work consisting of different fields of study in hospital conditions. This activity aims at creating positive attitudes towards the learning of communication competences and the implementation of these skills at the initial level of study and in therapeutic teams. The study group saw the relationship between communication competencies, respect for work in the group and work with the patient. It is worth noting, however, that in the opinion of respondents, the competence of communication skills is more important in building respect for the staff and the patient (82.5%) than in the case of working with therapeutic teams (64.7%). Students agreed that people find it difficult to admit to lacking in communication competence. Every fourth Polish student (27.95%) and almost every sixth Swiss student (17.54%) admitted that it is difficult for them to admit lack of skills in communication between
people. In addition, every fifth student from Poland (19.21%) and almost every third student from Switzerland (30.70%) were unable to determine their position on this issue.

Vandecasteele et al. [39] in their study have identified the relationship between communication (with medical staff, patient and within interdisciplinary teams) and patients’ and staff safety. They also claim that there is a link between communication skills and the atmosphere in the ward. The authors also point out that the lack of appropriate social skills, including communication, induces negative emotions that can lead to aggression on both the patient side and the medical staff. In turn, the appropriate level of soft skills influences the building of trust and respect between patients and nurses [39]. In their own investigations, almost all respondents argued that communication competencies were essential in working in the healthcare sector (98.5%). The students also pointed out that communication skills are a source of respect for the patient (82.5%) and other nurses in the team (64.7%).

In international literature, the studies in the field of communicative competence among health care students and staff are often conducted using the CSAS questionnaire [18,22,26,27,34-36, 40]. Rees et al. [41], the authors of the original version of the tool examined 225 first year medical students. In addition to a tool consisting of 26 attitudes, CSAS creators introduced a self-assessment questionnaire on communication skills. The median of the study group's results was 3, which meant that students did not have specific views on the science of communication competence. In their own study, despite the overwhelming positive attitudes of students towards the science of communication competence, the respondents' responses were also close to the value of 3, which means that in most aspects they were unable to determine their opinion on the given statements. Nearly all respondents (92%) in the study Rees et al. [41] found that communication skills are essential in medical studies. Similar results were obtained in self-reported studies, where the vast majority of respondents (98.5%) claimed that good communication skills were in tune with the quality of work performed in the medical profession. In addition, the authors of the original study [41] have noted that gender, language and ethnicity have varied in the results. The women surveyed showed less negative attitudes towards communication skills than men. Due to the statistically significant difference between the attitudes of Swiss and Polish students towards learning communication skills, it can be stated that, in their own study, language was also one of the differences in attitudes towards communication competences. It is interesting, however, that the results are the opposite of those obtained by Rees et al. [41] in the original study, in which it was found out that students whose first language was not English had less positive attitudes. In their own study, students from Poland who received the translated questionnaire presented less positive attitudes than students from Switzerland who received the tool in English. Because of small number of men in the respondents group (19%), the authors of the study could not analyze the attitudes by gender.

Fazel and Aghamolaei [29] surveyed 182 Israeli medical students. The authors observed that even though the research group presented positive attitudes towards the competence of communication, the respondents were less optimistic about questions related directly to the influence of these skills on the quality of the exams taken and professional skills acquired. In their own studies students presented similar attitudes towards these aspects. In attitude 22 on the impact of communication skills on the passing of professional examinations, Swiss students presented more positive attitudes than students from Poland.

6 CONCLUSION

The study group agreed that education in communication skills is very important and crucial for taking up employment in a health profession. Therefore, despite a high level of self-assessment, it needs to be considered whether to include communication-related issues in the teaching contents.

REFERENCES


