ORIGINAL RESEARCH

Perceived Communication Skills Among Tertiary Care Physicians

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Abstract

Objectives Self-perception in clinical skills, including communication skills (CS), has been found to provide insights on strengths, weaknesses, and opportunities for skill improvement. The present study is aimed at exploring perceived CS among physicians working at a tertiary healthcare level.

Methods Physicians working at a tertiary hospital based in Saudi Arabia were invited to complete a modified self-questionnaire that assesses CS. Descriptive and association studies were performed. Psychometric properties of the questionnaire were determined.

Results Out of the 101 participating physicians, 57.2% rated their CS in the range of very good and excellent, but only 30.7% rated themselves as overall excellent. The question item with the highest mean score (score range, 1 to 5) was related to encouraging patients to ask questions (4.2 ± 0.9), while the lowest was for the item that assessed information disclosure (3.8 ± 0.8). Males rated themselves higher than females in the item related to explaining things to patients ($p < 0.05$), whereas physicians with non-surgical specialties rated themselves better than those with surgical specialties in the item related to expressing interest in patients ($p < 0.05$).

Conclusions Based on physicians' self-rated assessment, less than the third of tertiary care physicians considered themselves as maintaining an excellent level of CS. Future studies are encouraged to examine CS through a multisystem assessment and promote the need for CS training for physicians working at a tertiary care level.

Keywords Communication skills · Self-assessment · Tertiary care · Physicians

Introduction

Communication skills (CS) have been considered fundamental cores for building high-quality relationships between patients and their physicians [1]. While good CS improve the quality of healthcare, these are also associated with benefits such as patient's satisfaction, improved compliance, and overall better physical and psychological health [2–4]. Internationally, to achieve high standards in CS, assessment and training of these competencies are required and have gained increased recognition as part of the effort to provide patient-centeredness care [5]. For example, in Saudi Arabia, the Saudi Commission for Health Specialties requires many residency programs to incorporate CS training and evaluation in their curriculum [6, 7].

One of the methods of assessment of CS is physicians' self-evaluation. Through this method, greater understanding of physicians' attitude toward CS can be obtained. For example, it can provide valuable information on physicians' confidence and expectations on how they conduct their daily communications with patients [8]. Based on studies on educational perspectives, self-assessment can facilitate self-reflection, through which self-regulation of learning may eventually enhance physicians' diagnostic abilities [9]. In fact, from a theoretical point of view, self-reflection is regarded as one of the cognitive regulation strategies that can improve self-regulation learning [10, 11].

Scores on self-assessment can provide insight on how physicians perceive their skills in comparison with other ways of assessment [8, 12, 13]. For example, a review by Gordon et al.

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reported moderate correlation (weighted mean $r = 0.57$) between students' or physicians' self-assessment and observers' assessment for video-recorded skill training; on the other hand, it was low to moderate in other methods of assessments [14]. Among primary care physicians, Burt et al. found physicians scored their CS lower than patients (mean scores [out of 100]; physicians 74.5; patients 94.4) but higher than external raters (mean scores 57.3) [15]. Another study on young physicians, who had completed or almost completed their internship, reported lower scores rated by physicians for their CS than the observers' scores [16].

Given the complex setting at tertiary care hospitals, where physicians deal with complex and advanced medical and surgical conditions, CS mandate special attention. Issues with transfer of care, treatment failure, end of life, and physical and psychological distresses have to be communicated properly with patients and their families to ensure optimal care [17–19]. Studies on physicians' perception of their CS in tertiary care settings are scant if any, especially in Saudi Arabia. This study is aimed at exploring physicians' self-assessment of CS at one of the tertiary care hospitals in Saudi Arabia.

Methods

Study Design and Participants

This is a cross-sectional study conducted in September 2017. Inclusion criteria were physicians who were consultants and had a permanent job position at the tertiary hospital in Saudi Arabia where the study was carried out. Exclusion criteria included residents and non-board-certified physicians or specialists. At the time of the study, the hospital had 550 beds, providing tertiary care to patients mainly with cardiac diseases, cancers, and specialized neurological diseases (e.g., multiple sclerosis, refractory cases of epilepsy, and complex neurosurgical cases). Convenience sampling method was used. The questionnaire survey was given to the secretaries of each clinical department and was collected after completion by physicians. The study was approved by the Institutional Review Board (IRB) of the King Abdullah Medical City No. 17-403.

Measures

The questionnaire included demographics and medical background such as type of specialty, years of clinical practice, attendance of CS courses, and whether consciously applying CS or not when encountering patients; it covered the first ten questions, out of 11 questions of the modified tool proposed by Symons et al. [13] for self-assessment of CS and professionalism in residents. The modified tool was adapted from the American Board of Internal Medicine (ABIM) patient survey which is part of the Patient and Physician Peer Assessment module used for maintaining professional certification [13]. The modification included using the third person (e.g., "treating them like") instead of the second person (e.g., "treating you like"). Through a 5-point Likert marking, physicians could select between poor, fair, good, very good, or excellent for each question item that reflects their perceived skill. The tool was found to be internally consistent and reliable for residents [13]. The 11th question "How would you rate your level of professionalism?" was not included because it assessed professionalism in a general term and was not included in the ABIM patient assessment questionnaire [20]. Several studies have reported good psychometric properties of the ABIM questionnaire survey in both Western and non-Western societies including Saudi Arabia, Taiwan, Iran, and Japan [20].

Since we did not find a study that assessed the psychometric properties of Symons's modified tool for tertiary care physicians, we analyzed its psychometric properties. We determined its internal consistency to ascertain its reliability. We also conducted an exploratory factor analysis to explore the construct dimensionality of the questionnaire items. Table 2 shows the questionnaire items.

Statistical Analysis

We calculated the mean, frequency distribution, and percentages of the variables of the participants. The questionnaire items were computed into singular mean and singular percentage for each participant. For the convenience of analysis, we re-categorized the five-point Likert scale into three groups: *poor or fair*, *average*, *very good or excellent*. The poor or fair group combined the poor and fair scores, and the very good or excellent group combined the very good and excellent scores. A Kruskal-Wallis test was conducted to determine if there were differences in questionnaire scores between different demographic and educational groups including age, gender, nationality, type of clinical specialty, years of clinical practice, attendance of CS training courses, and conscious application of CS when encountering patients.

For analysis of the psychometric properties of the questionnaire, we performed Cronbach's alpha on the questionnaire items to ascertain the internal consistency reliability of the questionnaire. For factor analysis, we first tested the suitability of the tool using the Kaiser-Meyer-Oklin (KMO) test and Bartlett's test of sphericity. Then, we determined the number of components by reviewing the total variance as well as the number of eigenvalues of each component. Any component with an eigenvalue greater than 1 was considered one construct dimension (theme). Data processing was performed using SPSS 21.0 software package. Level of significance was set at $p < 0.05$.

Results

Psychometric Properties of the Survey Questionnaire

The Cronbach alpha of the questionnaire was 0.892 indicating excellent internal consistency reliability. The corrected item–total correlations between questionnaire items were moderately high (0.5–0.76). For factor analysis, KMO was 0.842 indicating "middling" to "meritorious" suitability based on Kaiser [21]. Bartlett's test of sphericity was statistically significant ($p < 0.001$), indicating that the data was likely factorizable. Factor analysis revealed one component that had eigenvalue greater than 1 and which explained 51.3% of the total variance. Unlike the results of Symons et al. [13], which found two components when exploring the dimensionality of the scale namely interpersonal relations and conveying medical information, we only found one component. That is, all the question items in the questionnaire explained one theme which is the communication skills. The range of item loadings was moderate to strong (0.58–0.83).

Demographic Characteristics of the Participants

Table 1 presents the demographic characteristics of the participating physicians. Out of the 101 physicians, 78.2% were male. The age of the physicians ranged from 24 to 64 years.

Table 1 Demographic characteristics of the participants ($N = 101$)

Characteristic	Frequency, N (%)
Age (mean ± SD)	40.83 ± 9.35
Gender	
Male	79 (78.2%)
Female	22 (21.8%)
Nationality	
Saudi	24 (23.8%)
Non-Saudi	77 (76.2%)
Native Arabic speaking	
Yes	79 (78.2%)
No	22 (21.8%)
Type of medical specialty	
Non-surgical	69 (69.7%)
Surgical	30 (30.3%)
Years of clinical experience	
Mean ± SD	13.67 ± 8.01
Received formal CS training	
Yes	55 (54.5%)
No	46 (45.5%)
Consciously applying the communication skills	
Yes	80 (79.2%)
No	21 (20.8%)

Many of the physicians were non-Saudi (76.2%). All Saudi physicians stated speaking Arabic as their native language compared with only 71.4% of the non-Saudi physicians ($p < .001$). The non-Saudi physicians were also older than the Saudi physicians (43.6 ± 8.20 vs 33.1 ± 8.03, $p < 0.001$) with more years of clinical practice (15.0 ± 8.07 vs 9.35 ± 6.22, $p < 0.004$). In regard to the type of clinical specialties, the non-surgical physicians outnumbered the surgical physicians (69.7% vs 30.3%). Around half of the participants received CS training (54.4%), though most of them indicated the application of CS during their clinical encounters with patients (79.2%).

We found statistically significant differences between female and male physicians in terms of age, nationality, and attendance of CS training courses. The female physicians were younger than the males (32.4 ± 7.55 vs 43.2 ± 8.44, $p < 0.0001$) and who were more Saudi (45.5% vs 17.7%, $p < 0.007$), and indicated attendance of CS training courses more often than the males (81.8% vs 46.8%, $p < 0.004$). We did not find statistically significant differences by gender in regard to the years of clinical practice, surgical vs non-surgical specialties, or if physicians were consciously applying CS or not when encountering patients.

Questionnaire Results

Table 2 shows the mean values of the individual items of the survey questionnaire. More than half of the physicians (57.4%) rated their CS in the range of very good or excellent. Only 30.7% of the physicians rated themselves overall excellent. The scores of the average and poor or fair scores were 35.6% and 6.9% respectively. The highest scored question (mean 4.20 ± 0.87; percent-excellent rating 44.6%) was for "encouraging them to ask questions, etc.", while the lowest scored question (mean 3.76 ± 0.79; percent-excellent rating 18.8%) was for "telling them everything, etc.".

Based on the Kruskal-Wallis Independent Samples test, no significant statistical differences in the total mean scores of the questionnaire were found in each of the demographic and educational variables. However, statistically significant differences were found in two individual questionnaire items (Table 3). The male physicians rated themselves better than the female physicians in regard to the questionnaire item "explaining what they need to know about their problems, etc." (very good or excellent: male 83.5% vs female 63.6%, $p = 0.032$). Also, the physicians with non-surgical specialties rated themselves better than the physicians with surgical specialties in regard to the question item "showing interest in them as a person, etc." (very good or excellent: non-surgical physicians 87% vs surgical physicians 70%, $p = 0.047$).

Table 2 Scores of the individual items of the self-rated CS and professionalism questionnaire

Item	Mean ± SD	Rating, N (%)				
		Poor	Fair	Good	Very good	Excellent
1. "Telling them everything; being truthful, upfront and frank; not keeping things from them that they should know"	3.76 ± 0.79	0	3 (3%)	37 (36.6%)	42 (41.6%)	19 (18.8%)
2. "Greeting them warmly; calling them by name they prefer; being friendly, never crabby or rude"	4.07 ± 0.93	1 (1%)	6 (5.9%)	16 (15.8%)	40 (39.6%)	38 (37.6%)
3. "Treating them like they are on the same level; never "talking down" to them or treating them like a child"	4.04 ± 0.84	0	3 (3%)	24 (23.8%)	40 (39.6%)	34 (33.7%)
4. "Letting them tell their story; listening carefully; asking thoughtful questions; not interrupting them while they are talking"	4.00 ± 0.87	0	5 (5%)	23 (22.8%)	40 (39.6%)	33 (32.7%)
5. "Showing interest in them as a person; not acting bored or ignoring what they have to say"	4.15 ± 0.90	0	8 (7.9%)	10 (9.9%)	42 (41.6%)	41 (40.6%)
6. "Warning them during the physical exam about what you are going to do and why; telling them what you find"	3.97 ± 0.94	2 (2%)	6 (5.9%)	17 (16.8%)	46 (45.5%)	30 (29.7%)
7. "Discussing options with them; asking their opinion; offering choices and letting them help decide what to do; asking what they think before telling them what to do"	4.01 ± 0.85	0	5 (5%)	21 (20.8%)	43 (426%)	32 (31.7%)
8. "Encouraging them to ask questions; answering them clearly; never avoiding their questions or lecturing them"	4.20 ± 0.87	0	4 (4%)	18 (17.8%)	34 (33.7%)	45 (44.6%)
9. "Explaining what they need to know about their problems, how and why they occurred, and what to expect next"	4.05 ± 0.82	0	5 (5%)	16 (15.8%)	49 (48.5%)	31 (30.7%)
10. "Using words they can understand when explaining their problems and treatment; explaining any technical medical terms in plain language"	4.11 ± 0.85	1 (1%)	2 (2%)	19 (18.8%)	42 (41.6%)	37 (36.6%)
Overall score	4.03 ± 0.62	0	5 (5%)	20 (19.8%)	42 (41.6%)	31 (30.7%)

Discussion

The major finding of the present study was the low perceived excellent scores of CS among tertiary care physicians (30.7%). Even when combined with the very good scores, it was just half above (57.4%) leaving 42.5% for the average scores and below. As noted in the background, self-assessment of physicians was different from other ways of CS assessment with the tendency to be lower than patients' assessment and similar or higher than external raters' scores [15, 16, 22]. The rationale behind the low self-perceived excellent scores seems to be multifactorial. Among these factors is the low attendance of CS training courses. While almost 80% of the physicians stated conscious application of CS in

Table 3 Scores of statistically significant questionnaire items of the CS questionnaire by gender and medical specialty

Questionnaire item		Physicians' assessment			df	χ^2	p value
		Poor or fair	Average	Very good or excellent			
9. Explaining what they need to know about their problems, how and why they occurred, and what to expect next	Male Female	2 (2.5%) 3 (13.6%)	11 (13.9%) 5 (22.7%)	66 (83.5%) 14 (63.6%)	1	4.62	.032
5. Showing interest in them as a person; not acting bored or ignoring what they have to say	Surgical Non-surgical	4 (13.3%) 4 (5.8%)	5 (16.7%) 5 (7.2%)	21 (70.0%) 60 (87.0%)	1	3.96	.047

their daily practice, only 54.5% of the physicians indicated a previous attendance of CS training courses with female physicians outnumbering male physicians in CS training attendance (81.8% vs 46.8%, $p < 0.004$). Other reasons reported by other studies include an observed decline of CS of practicing physicians over the years [23] as well as the high levels of self-criticism among highly competent physicians who were given high scores by external observers but rated themselves lower than the observer's rate [16]. Nonetheless, a multisystem assessment for physicians' performance, including CS assessment, would provide a better quality evaluation [24, 25], and would give a better understanding of this low rate results.

Perceived CS were also different between the questionnaire items. The highest score was rated for the item that focused on encouraging patients to ask questions and the lowest score for the item that measured information disclosure. Given the heterogeneity in designs, physician characteristics, settings, and measurement tools in studies that investigated CS self-assessment of physicians, comparing our findings with those of other studies was not feasible. Also, few studies have reported the individual variations between questionnaire items [23, 26]. For example, a study which used the Communication Assessment Tool (CAT) to assess CS in 38 physicians across a variety of regions and specialties in the USA showed that physicians' self-assessment scores were the highest for the question item "treating me with respect" and the lowest for "spending the right amount of time with me" [22]. In a Canadian study, 160 family practitioners who had been in practice for an average of 16.9 years felt most confident on conveying empathy to patients and least confident on communicating effectively with patients whom the physicians found difficult to communicate [27].

The finding of the high rates of perceived CS in encouraging patients to ask questions can be viewed from patients' side who, in the Middle East culture, consider their physicians the person who knows best on how to manage their condition. This might require encouraging patients to ask questions and provide more details about their illnesses. Moreover, it can be related to the ongoing observed shift from the paternalistic approach in patient–doctor communication toward a mutual and collaborative approach in the Middle East healthcare system [28, 29]. Unsurprisingly low, information disclosure was rated the lowest among other CS questionnaire items. The reasons behind it can be viewed from different angles. First, in a setting of a tertiary care hospital, physicians face complex and life-threatening diseases such as cancer, and advanced cardiac and neurological diseases that necessitate communicating bad news, limited management options, and issues of death. Second, difficult communication encounters have been regarded among the significant distresses and burnout for physicians which can impact the ability to disclose information [30, 31]. Finally, families often are involved in the medical decision-making, which is especially valid in "non-Western" societies where patients' autonomy might have been jeopardized by the interfering families [29, 32].

Although CS have to be mastered by physicians regardless of their disciplines, culture, and gender, differences do exist between different demographic and educational variables and have been the target for many studies [33–35]. For example, female physicians tend to address empathy, ask for more information, and communicate positive statements more than male physicians [33, 36]. When it comes to CS, female physicians tend to underscore their CS in comparison to male physicians in some studies [37, 38], although their perceived CS have been found to get improvement and may even surpass males after attending CS training courses [39, 40]. In the present study, female physicians, compared with male physicians, perceived lower scores for the question item related to explaining what patients need to know. In regard to CS differences in medical specialties, physicians with surgical specialties indicated lower scores for showing interest in patients as a person than physicians with non-surgical specialties. This finding parallels the results of other similar studies which stated the need for improving CS and empathy in medical training for surgeons [41, 42].

Despite the fact that the study provided insight on the perceived CS among tertiary care physicians through self-assessment, a multisource assessment for CS would have provided a better understanding of their CS. Other limitations posed to the current study include the small sample size and the unknown response rate. Also, male physicians predominated the study sample. For the study instrument, we concluded an excellent internal consistency but would suggest for future studies to compare the self-rated instrument with patients' assessment on a longitudinal scale to determine any variance and to establish the scale convergent and discriminative validity.

Practical Implications

Self-reflection is one of the many methods in the assessment and training for various medical competencies including CS and professionalism. This reflection can help in providing insight on perceived strengths, weaknesses, and opportunities for improvement [8]. We recommend CS training for tertiary care physicians with special attention on information disclosure that is assessed through multisource evaluations in order to provide a better understanding of this critical and fundamental competency.

Conclusion

Tertiary care physicians perceived low excellent scores in CS, particularly in information disclosure. Almost half of the

physicians reported no prior CS training which might have a significant impact on the perceived low scores. Female physicians outnumbered male physicians in attending CS courses but significantly perceived lower rates in explaining medical information to their patients. Also, physicians with surgical specialties viewed their skills in expressing interest to patients lower than did physicians with non-surgical specialties.

Compliance with Ethical Standards

Conflict of Interest   The authors declare that they have no conflict of interest.

Ethical Approval   All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The study was approved by the IRB committee of King Abdullah Medical City No. 17-403.

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