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Research Article

Exploring Attitudes toward Communication Skills Training and Their Impact on Patient-Centeredness among Medical Students in Sri Lanka: A Cross-Sectional Study

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Introduction. Communication skills (CS) play a paramount role in medical students' (MS) interaction with patients. They are essential when approaching a patient holistically to provide comprehensive care with the aim of both treating an illness and improving patient satisfaction. However, there seems to be a deficiency in communication skills training (CST) for students in Sri Lanka. Enhancing CS at an early stage will give rise to patient-centered doctors in the future, thus augmenting patient care. This study aimed to evaluate the level and patterns of attitude toward (CST) and the weight of patient-centeredness on such attitudes. *Materials and Methods*. A descriptive cross-sectional study was conducted using self-administered questionnaires among MS in the final 2 years. The Communication Skills Attitude Scale and Patient–Practitioner Orientation Scale were used to determine attitudes toward CST and patient-centeredness, respectively. Independent sample *t*-tests and Pearson's correlation coefficient were used to evaluate intervariable relationships. A statistical significance of $p < 0.05$ was used. *Results*. Students had high positive attitudes (mean 3.80) and lesser negative attitudes (mean 2.16) toward CST, in general. A greater positive attitude was associated with prior attendance to a CST session, female gender, and patient-centeredness. Female students and final-year students showed higher levels of patient-centeredness and also scored more on the caring subscale. There was a significant association between the sharing subscore and a positive attitude toward CST. *Conclusion*. Our findings suggest that improving patient-centeredness among MS via a CST program would enhance the essential CS required of them. Integration of such a program as a formal subject into the medical curriculum of Sri Lanka, both at the beginning and latter part of the undergraduate course, would lead to better patient-centeredness, thus leading to improved patient care.

1. Introduction

Communication (CS) play a pivotal role in any healthcare delivery system and are essential for skills correct diagnosis, providing optimum treatment, ensuring compliance, and finally improving patient satisfaction [1]. A competent CS acts as the foundation of a trusting doctor–patient relationship. Not only is it fundamental to treat an illness, but it also helps a clinician approach a patient more holistically to provide comprehensive care to the patient, a concept more commonly referred to as "patient-centeredness," where you treat the patient and not the disease [2–6].

In today's rapidly evolving healthcare landscape, the significance of effective CS cannot be overstated. Recognizing the need to prioritize communication training, there has been a growing focus on addressing the deficit in CS among medical students (MS) [7, 8]. However, despite the acknowledged importance of communication, there is still a scarcity of research being done to comprehensively tackle this issue [9–12]. Many communication training programs for MS tend to focus only on specific aspects, such as breaking bad news or obtaining informed consent, while neglecting the broader spectrum of CS required in clinical practice [4]. Recognition of this lack of education has led to an increasing

number of medical schools integrating training programs into their curricula [12].

Empathy, a crucial component of patient-centered care, has been shown to contribute significantly to the strength of the doctor–patient relationship and overall clinical outcomes [13]. However, existing literature suggests that empathy levels among MS tend to be below average with a progressive decline, owing to a variety of factors [14–16]. Evidence from previous studies regarding physician–patient communication revealed that doctors do lack patient-centeredness due to poor CS and greatly benefit from communication skills training (CST) programs [17–20]. Therefore, integrating well-structured CST programs into undergraduate medical education has the potential to yield better outcomes and foster empathetic, patient-centered practitioners [21]. The attitude shown toward CST depends on an array of factors, and it is essential to first understand the existing levels and patterns of attitude shown by MS [22].

While the importance of CST is recognized in many countries, the topic of attitude toward CST remains relatively unexplored in Sri Lanka [10]. As far as nurturing CS is concerned, it is shown that students' perception of learning such skills has a greater impact than the teaching method used [23]. Thus, these attitudes need to be understood and addressed to intensify their impact so that a teaching program can be customized to be well received by the students [24, 25]. Moreover, it is valuable to examine attitude in terms of its affective and cognitive components, as analyzing the contribution of each to the overall picture can provide practical insights beyond a surface-level understanding of attitude alone [26].

In light of these considerations, the objective of our study was to evaluate the weight of patient-centeredness on the patterns of attitude toward CST among MS in Sri Lanka. By doing so, strategies could be developed to enhance the CS possessed by MS in the country.

2. Materials and Methods

2.1. Participants. A descriptive cross-sectional study was conducted using a convenient sample of fourth and fifth-year MS from the above university. Students from this category were selected due to the fact that students belonging to the final 2 years had greater clinical exposure with patients compared to students from preclinical years. Hence, the assessment of patient centeredness in such students would be unreliable.

The total number of fourth-year and fifth-year MS at the time of the study was 120 and 320, respectively. The only inclusion criterion was the need for the completion of at least one clinical appointment physically.

2.2. Data Collection Instrument and Scales Used. The study was conducted virtually through the use of "Google Forms." Anonymous structured self-administered questionnaires were used to collect data. A link with the embedded questionnaire of the study was shared among private social media platforms. Links were kept active for accepting responses for 2 months until an adequate sample size was reached.

For the assessment of the attitude toward CST, the Communication Skills Attitude Scale (CSAS, Appendix A) was used as this is a validated tool, developed by Rees et al. [27] and is considered an international standard for the assessment of such attitude. The selection of the CSAS allows the comparison of the findings of our study with other relevant studies using the same scale. It comprises 26 items divided into two dimensions to measure positive and negative attitudes toward learning CS. Each of the two subscales consists of 13 items, the Positive Attitude Scale (PAS) and the Negative Attitude Scale (NAS), with Cronbach's alpha values of 0.873 and 0.805, respectively. Items were rated on a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Both scales range from 13 to 65, and higher scores in both represent stronger positive or negative attitudes. Out of the 26 items on the CSAS, items were grouped into three subsets, "learning" CS, "importance" of learning such skills, and "respecting" patients' rights, as shown by the work of Anvik et al. [26]. The first concerns how students feel about CST, the second is about how much they value the importance of these CS, and the final subset deals with using CS to both respect the confidentiality of patients and work together as a team.

For assessing patient-centeredness, the Patient–Practitioner Orientation Scale (PPOS, Appendix B), developed by Krupat et al. [28], was used. It holds a Cronbach's alpha value of 0.763 and comprises 18 items, each marked on a Likert scale ranging from 1(strongly disagree) to 6 (strongly agree). These are summed up, and a higher score indicates more patient-centeredness. The scale can also be broken into two distinct subscales: Sharing and Caring, with Cronbach's alpha values of 0.685 and 0.574, respectively. The sharing factor encompasses the extent to which the provider shares power with a patient in a medical-care relationship. The Caring factor reflects the belief that the provider is concerned about the patient and treats him or her as a whole.

In addition, sociodemographic data and details regarding any attendance to a previous CST session were also recorded. The questionnaire was prepared only in English since our study population consisted entirely of MS who were presumably well educated with proficiency in the English language. It was pretested on a representative sample of a set of fourth and final-year MS to ensure its validity.

2.3. Data Analysis. Statistical Package for Social Sciences (SPSS) software version 26 was used for data analysis. Descriptive statistics were used to describe the data through frequency tables and cross-tabulations, with measures of central tendency included where relevant. Hypotheses were then developed, and inferential statistics were used to accept or reject them using a statistical significance of less than 0.05 probability at a 95% confidence interval.

3. Results

In total, 334 students participated in the study. The response rate of fourth-year MS was 67.5%, while that of final-year students was 79.1%. Sociodemographic parameters and other characteristics of the sample are summarized in Table 1.

Responses to the individual items of the CSAS showed that the statement "In order to be a good doctor I must have good CS" carried the highest mean score of 4.65, whereas

Table 1: Sociodemographic data and characteristics.

Gender	*n* (%)
Male	119 (35.6%)
Female	215 (64.4%)
Age group	
20–22 years	15 (4.5%)
23–25 years	154 (46.1%)
Above 26 years	165 (49.4%)
Year of study	
Fourth year	81 (24.3%)
Final year	253 (75.7%)
Nationality	
Sri Lankan	289 (86.5%)
Other	45 (13.5%)
Specialize in future	
Yes	312 (93.4%)
No	22 (6.6%)
Heard of CS training before	
Yes	315 (94.3%)
No	19 (5.7%)
Attended CS training sessions before	
Yes	44 (13.2%)
No	290 (86.8%)

CS, communication skills.

"I don't see why I should learn CS" had the lowest mean score of 1.28.

The mean PAS and NAS scores for the overall sample were 3.80 and 2.16, respectively. Mean scores for the three categories of the CSAS score: Learning, Importance, and Respect were 3.01, 3.14, and 3.99, respectively.

The relationship between CSAS scores with different variables was evaluated using the *t*-test for independent samples, and their means were compared (Table 2). This revealed a significant association between gender and the following scores: PAS, NAS, Learning, and Respect.

To evaluate the relationship between different subscores of the CSAS, Pearson's correlation coefficient was used, and the correlation between individual scores was compared (Table 3). The PAS score was positively associated mostly with the respect score.

The relationship between the PPOS score and its subscores with other variables was also evaluated (Table 4). There was a significant difference between the male and female students. Furthermore, the year of study was not significant for the sharing subscore.

Pearson's correlation coefficient was also applied to compare the overall PPOS score and its subscores with the CSAS subscores (Table 5). This showed significance between the PPOS score and caring subscore with all subscores of the CSAS.

4. Discussion and Conclusion

4.1. Discussion. Our study produced a mean PAS of 3.80, revealing that students, in general, show a positive attitude toward learning CS. This was lower than the findings in a previous Sri Lankan study [10]. However, our study comprised students attending clinical training in contrast to this study, which could explain the difference in a positive attitude. To further explore the patterns of positive attitude, evaluation of the three subscores of learning, importance, and respect showed that students generally show an interest in learning CS as well as appreciate the importance of it. Further, they realize CS to be essential in respecting patients' privacy. The learning score reflects the affective component of attitude, whereas the importance score reflects the cognitive component of attitude. The significance of this categorization, as highlighted by Anvik et al. [26], is that the former is more subject to change, whereas the latter tends to be more stable.

Our study revealed that males showed a lesser positive attitude compared to females. These findings contrast a previous Sri Lankan University study [10] where there was no significant association between gender and attitude. However, gender had been a major determinant in previous studies, similar to ours, with female students usually scoring more on the PAS scale [29].

Interestingly, the year of study did not have a significance on the overall positive and negative attitudes toward CST, which implies that the level of academic knowledge does not have a direct effect on the attitude. However, final-year students scored more on the scores of learning and importance, implying that with exposure to more patients, they appreciate the value of these skills.

The level of patient-centeredness, where the patient is involved in decision-making, is a major determinant of how students perceive the importance of CST. Its positive correlation with the PAS reflects that students who collaborate with patients tend to improve this essential skill. To further supplement this statement, patient-centeredness was associated negatively with the mean NAS score.

As far as patient-centeredness is concerned, female students were more patient-oriented than their male counterparts, a finding mirrored in several studies worldwide [30–33]. This was true for both the sharing and caring subscores as well.

The level of patient-centeredness showed an increase with seniority, which was similar to findings from studies conducted in Asia [30, 33]. However, it contrasts with findings from a few other studies [31, 32, 34–36]. There was no difference in the sharing score between senior and junior students. Conversely, senior students scored significantly higher on the caring score compared to their juniors. This was also the case for another study [30]. This could be due to students placing more value on the patient's point of view as they encounter more patients during their clinical training. The reason for a lack of significance with the sharing score could be that students focus more on gathering information rather than formulating a direct management plan during their undergraduate years. This is because, in practice, the latter would be largely influenced by Consultants and other doctors. Hence, students would adopt similar history-taking patterns, irrespective of the year of study.

As far as the three factors of learning, importance, and respect are concerned, the latter correlates significantly with

Table 2: Association of CSAS scores with other variables.

	PAS mean (SD)	NAS mean (SD)	Learning mean (SD)	Importance mean (SD)	Respect mean (SD)
Gender					
Male	3.64 (0.25)	2.25 (0.25)	2.91 (0.25)	3.14 (0.36)	3.76 (0.42)
Female	3.89 (0.33)	2.12 (0.27)	3.05 (0.27)	3.14 (0.37)	4.02 (0.45)
	$t = 7.27$, $p < 0.05$	$t = 4.33$, $p < 0.05$	$t = 4.95$, $p < 0.05$	$t = 0.097$, $p = 0.92$	$t = 5.18$, $p < 0.05$
Year of study					
Fourth	3.78 (0.21)	2.15 (0.24)	2.94 (0.24)	3.07 (0.38)	3.93 (0.32)
Fifth	3.80 (0.36)	2.17 (0.28)	3.03 (0.27)	3.16 (0.36)	3.93 (0.49)
	$t = 0.37$, $p = 0.71$	$t = 0.62$, $p = 0.53$	$t = 2.54$, $p < 0.05$	$t = 1.99$, $p < 0.05$	$t = 0.01$, $p = 1.000$
Attended CS training sessions					
Yes	3.89 (0.43)	2.15 (0.26)	2.98 (0.26)	3.20 (0.38)	4.15 (0.57)
No	3.79 (0.31)	2.17 (0.27)	3.01 (0.27)	3.13 (0.36)	3.89 (0.43)
	$t = 2.06$, $p < 0.05$	$t = 0.40$, $p = 0.69$	$t = 0.66$, $p = 0.51$	$t = 1.22$, $p = 0.22$	$t = 3.52$, $p < 0.05$

PAS, Positive Attitude Scale; NAS, Negative Attitude Scale; CS, communication skills; CSAS, Communication Skills Attitude Scale; SD, standard deviation.

Table 3: Correlation between CSAS subscores.

	PAS	NAS	Learning	Importance	Respect
PAS	1.000	−0.223*	0.565*	0.056	0.695*
NAS	−0.223*	1.000	0.380*	−0.110**	−0.160*
Learning	0.565*	0.380*	1.000	0.068	0.242*
Importance	0.056	−0.110**	0.068	1.000	0.180*
Respect	0.695*	−0.160*	0.242*	0.180*	1.000

*Correlation significant at 0.01 level (2-tailed). **Correlation significant at 0.05 level (2-tailed). PAS, Positive Attitude Scale; NAS, Negative Attitude Scale; CSAS, Communication Skills Attitude Scale.

Table 4: Association of PPOS scores with other variables.

	PPOS mean (SD)	Sharing mean (SD)	Caring mean (SD)
Gender			
Male	4.22 (0.27)	4.11 (0.28)	4.33 (0.40)
Female	4.41 (0.29)	4.28 (0.39)	4.53 (0.35)
	$t = 5.65$, $p < 0.05$	$t = 4.19$, $p < 0.05$	$t = 4.63$, $p < 0.05$
Year of study			
Fourth	4.26 (0.24)	4.17 (0.33)	4.34 (0.32)
Fifth	4.36 (0.31)	4.24 (0.37)	4.49 (0.39)
	$t = 2.89$, $p < 0.05$	$t = 1.34$, $p = 0.181$	$t = 3.20$, $p < 0.05$

PPOS, Patient–Practitioner Orientation Scale; SD, standard deviation.

Table 5: Correlation between PPOS subscores.

	PAS	NAS	Learning	Importance	Respect
PPOS	0.209*	−0.195*	0.220*	0.114*	0.163*
Sharing	0.122**	−0.163*	0.121**	−0.016	0.055
Caring	0.208*	−0.146*	0.227*	0.193*	0.200*

*Correlation significant at 0.01 level (2-tailed). **Correlation significant at 0.05 level (2-tailed). PPOS, Patient–Practitioner Orientation Scale; PAS, Positive Attitude Scale; NAS, Negative Attitude Scale.

the other two factors in a positive direction. This implies that students who value the confidentiality of patients, in fact, show an interest in learning CS as well as realize its importance in their careers. However, learning and importance do not correlate significantly with each other, highlighting that enthusiasm to learn CS does not necessarily mean that one would always prioritize learning such skills. In addition, the learning score showed the most negative correlation with the NAS, as expected.

Although the overall PPOS scores showed a significant positive correlation with the PAS, NAS, and other subscores of CSAS, the subscore of importance was not as strong as it was with the others. This finding is similar to the study conducted by Anvik [26], which may have been due to the

fact they are still undergraduates, lacked work experience, and hence have not yet fully realized the potential of a good set of CS. Also, it is noteworthy that the subscore of caring was the only component of the PPOS scale to positively correlate with all components of the CSAS. This further adds to the explanation that those who prefer a patient-centered approach would show a better attitude.

Interestingly, the sharing subscore had a positive correlation with the PAS and learning subscores, reflecting that students who appreciate the involvement of the patient in decision-making also tend to show an interest in improving their CS.

The PAS mean was greater in those who had attended a CST course in the past. This highlights that students do, in fact, recognize the benefits of a well-delivered CST course, a positive message from our study. However, this contrasts with a Sri Lankan study done by Marambe [10], which we believe could be due to variations in the different communication training programs attended by students. The lack of significance between the learning score and prior attendance to a CST session could be because, although a prior lesson would positively reinforce future lessons, some students would have had a negative learning experience in the past, diminishing their keenness.

The strengths of this study were its large sample size of 334 students and the inclusion of the PPOS scale with its subscores in assessing the attitude, an aspect often not addressed in similar studies.

Limitations of this study were it being a cross-sectional study, giving rise to a preclusion of causality. Initial factor analysis was not performed prior to formal analysis of CSAS, and the use of self-reported CSAS and PPOS scales would have affected the validity of the data. In addition, results were analyzed under the assumption that each student has filled the "Google form" only once. Although Anvik [26] shows that the CSAS could be analyzed under three subsets, as performed in our study, Ruiz-moral et al. [29] claim that the scale was not designed to differentiate between cognitive and affective attitudes. A future survey among the same sample of students after a CST session would be helpful to supplement the medical curriculum of undergraduate students. Moreover, some students may have been to more than one appointment, thus changing the level of real-life experience of students within the sample.

4.2. Conclusions. Our study revealed interesting relationships between the levels and patterns of attitude toward CST and was able to compare patient-centeredness with attitude.

MS do show a positive attitude toward CST, but our findings suggest room for improvement, which could be facilitated by boosting their levels of patient-centeredness. This could be achieved through a CST program for MS.

4.3. Practice Implications. By creating awareness of the effect of patient-centeredness on CS among all medical schools in the country, it would be possible to argue for the integration of CST as a formal subject into the medical curriculum. A structured program [12, 17–20] could be formulated by further analyzing the areas of communication that need nurturing.

It is also recommended that CST sessions be introduced to students both at the beginning as well as the latter part of the undergraduate course to supplement a positive attitude at all times, thus improving patient care.

Appendix

A. Communication Skills Attitude Scale

1 = strongly disagree; 2 = slightly disagree; 3 = neutral; 4 = slightly agree; 5 = strongly agree

	1	2	3	4	5
In order to be a good doctor I must have good CS	—	—	—	—	—
I do not see why I should learn CS	—	—	—	—	—
Nobody is going to fail their degree for having poor CS	—	—	—	—	—
Developing my CS is as important as developing my knowledge of medicine	—	—	—	—	—
Learning CS will help me respect patients	—	—	—	—	—
I have not got time to learn CS	—	—	—	—	—
Learning CS will be interesting	—	—	—	—	—
It is too much trouble to attend sessions on CS	—	—	—	—	—
Learning CS will help my teamwork skills	—	—	—	—	—
Learning CS will improve my ability to communicate with patients	—	—	—	—	—
CS teaching states the obvious and then complicates it	—	—	—	—	—
Learning CS is fun	—	—	—	—	—
Learning CS is too easy	—	—	—	—	—
Learning CS will help me respect my colleagues	—	—	—	—	—
I find it difficult to trust information about CS given to me by nonclinical lecturers	—	—	—	—	—
Learning CS will help me recognize patients' rights regarding confidentiality and consent	—	—	—	—	—
CS teaching would have a better image if it sounded more like a science subject	—	—	—	—	—
When applying for medicine, I thought it was a really good idea to learn CS	—	—	—	—	—
I do not need good CS to be a doctor	—	—	—	—	—

	1	2	3	4	5
I do not want to tell anyone that I am having problems with my CS	—	—	—	—	—
I think it is really useful learning CS on the medical degree	—	—	—	—	—
My ability to pass exams will get me through medical school rather than my ability to communicate	—	—	—	—	—
Learning CS is applicable to learning medicine	—	—	—	—	—
I find it difficult to take CS learning seriously	—	—	—	—	—
Learning CS is important because my ability to communicate is a lifelong skill	—	—	—	—	—
CS learning should be left to psychological students, not medical students	—	—	—	—	—

B. Patient–Practitioner Orientation Scale

1 = strongly disagree; 2 = moderately disagree; 3 = slightly disagree; 4 = slightly agree; 5 = moderately agree; 6 = strongly agree

	1	2	3	4	5	6
The doctor is the one who should decide what gets talked about during a visit	—	—	—	—	—	—
It is often best for patients if they do not have a full explanation of their medical condition	—	—	—	—	—	—
Patients should rely on their doctors' knowledge and not try to find out about their conditions on their own	—	—	—	—	—	—
The most important part of the standard medical visit is the physical exam	—	—	—	—	—	—
When doctors ask a lot of questions about a patient's background, they are prying too much into personal matters	—	—	—	—	—	—
If doctors are truly good at diagnosis and treatment, the way they empathize with patients is not that important	—	—	—	—	—	—
Many patients continue asking questions even though they are not learning anything new	—	—	—	—	—	—
Patients should be treated as if they were partners with the doctor, equal in power and status	—	—	—	—	—	—
Patients generally want reassurance rather than information about their health	—	—	—	—	—	—
If a doctor's primary tools are being open and warm, the doctor will not have a lot of success	—	—	—	—	—	—
When patients disagree with their doctor, this is a sign that the doctor does not have the patient's respect and trust	—	—	—	—	—	—
A treatment plan cannot succeed if it is in conflict with a patient's lifestyle or values	—	—	—	—	—	—
Most patients want to get in and out of the doctor's office as quickly as possible	—	—	—	—	—	—
The patient must always be aware that the doctor is in charge	—	—	—	—	—	—
Health care is less personal these days but I feel that it is a small price to pay for medical advances	—	—	—	—	—	—
It is not that important to know a patient's culture and background in order to treat the person's illness	—	—	—	—	—	—
Humor is a major ingredient in the doctor's treatment of the patient	—	—	—	—	—	—
When patients look up medical information on their own, this usually confuses more than it helps	—	—	—	—	—	—

Data Availability

Data will be available to readers upon reasonable request.

Ethical Approval

Ethical clearance for the study was obtained from the Ethics Review Committee of General Sir John Kotelawala Defence University on January 5, 2022, under the reference number RP/2021/66 on January 5, 2022.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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