

# KNOWLEDGE AND PERCEPTION OF SOFT SKILLS AMONG MEDICAL STUDENTS AND POSTGRADUATE RESIDENTS AT SERVICES HOSPITAL LAHORE.

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## Abstract

**Background and Objectives:** Soft skills have emerged as a novel focal area for health care practitioners. Objective of this study was to assess the perception of medical students and postgraduate residents regarding soft skills and the need of incorporating these skills into the curriculum.

**Methods:** This cross-sectional descriptive study was conducted at the Services Institute of Medical Sciences and Services Hospital in Lahore from January 1st to March 31st, 2023. A total of 192 participants, divided into two groups on the basis of their academic and clinical experience (Group 1 medical students final year and group 2 postgraduate residents of SHL (1st year) were included in the study after informed consent. Participants were given a pre-designed, validated questionnaire to record their details and assess their soft skills.

**Results:** Postgraduate doctors were more effective at educating and motivating patients regarding treatment plans (84.4% vs. 15.6%,  $p < 0.0001$ ), problem solving in critical situations (83.3% vs. 16.7%,  $p = 0.0001$ ), and managing ethical conflicts (82.3% vs. 17.7%,  $p < 0.0001$ ) compared to medical students. Doctors reported being taught communication skills (88.5% vs. 67.7%,  $p = 0.0005$ ), critical thinking and problem-solving skills (81.3% vs. 31.3%,  $p = 0.0001$ ), time management skills (89.6% vs. 10.4%,  $p = 0.0001$ ), and leadership skills (77.1% vs. 57.3%,  $p = 0.0035$ ) more than medical students. A higher proportion of doctors had been assessed by their supervisors on communication skills (71.9% vs. 41.7%,  $p = 0.00003$ ), critical thinking and problem-solving skills (49.0% vs. 27.1%,  $p = 0.0018$ ), and leadership skills (74.0% vs. 33.3%,  $p = 0.0001$ ) compared to medical students.

**Conclusion:** Postgraduate doctors exhibit stronger aptitude in essential soft skills as compared to medical students therefore efforts should be made to integrate soft skills in healthcare educational program for better patient care and prepare medical students and residents for the multifaceted challenges they will face in their career.

**Key words:** soft skills, perception, curriculum.

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The two essential skills required in healthcare are soft skills and clinical proficiency. Soft skills and their relevance for healthcare practitioners has become a new area of consideration. Clinical skills are relatively simple to define and gauge, and proficiency

in these abilities is frequently evaluated. While soft skills are not strictly cognitive or technical<sup>1</sup> and ones that include both intrapersonal and interpersonal competencies.<sup>2</sup> They are the abilities that providers require in order to effectively communicate, lead, and collaborate in the workplace. Most patients and their families are truly unable to accurately assess a provider's technical or hard skills; it is their soft skill strength that shows their healthcare competency.<sup>3</sup>

As a healthcare provider, "soft" skills affect everyone (i.e., patients, team members, and colleagues). A study conducted in India shows that soft skills are

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used in personal as well as in professional life.<sup>4</sup> The soft skills help to organize, plan, and manage the changes during the course of growing. Successful workplace collaboration also depends on having open lines of communication with team members and peers from other professions.<sup>5</sup>

Training doctors in soft skills, such as being receptive to the needs of patients or society, is more challenging than training them in hard skills. According to study conducted in Ghana, the educational curriculum should include soft skills modules, and it should be assessed practically before registration for practice.<sup>6</sup> Another study conducted in South Africa shows that the educational and training efforts of the reformed curriculum are associated with an adeptness on the part of the students at applying soft skills to the demands of difficult clinical situations.<sup>7</sup> In recent decades, it has been clearly identified that soft skills training is very important in healthcare education and must be developed alongside other professional skills.<sup>8</sup> Yet, despite of these findings, soft skills are still developed only in a limited way in our healthcare education settings.

The aim of this study is to assess medical students and postgraduate residents’ perception of soft skills and need of its incorporation in curriculum to cope better with the future challenges in personal and professional life.

**METHODS**

It was a cross sectional descriptive study conducted in Services institute of medical Sciences and Services Hospital Lahore from 1<sup>st</sup> January to 31<sup>st</sup> March 2023. The Services Hospital Lahore IRB gave ethical approval for the study at 5<sup>th</sup> Dec 2022 ref.no. IRB///SIMS. Sample size was calculated from win pepi ver: 11.15 using stratified sampling for proportion. To estimate a proportion (stratified sample) at confidence level of 95%, acceptable difference of 0.05, Size of population as 400 (200 medical students and 200 postgraduate students) and assuming 50% had knowledge regarding soft skills. Sample size calculated was 192, 96 in each group (Group 1 medical students and Group 2 Postgraduate residents). Non-probability convenient sampling technique was used. Medical students of SIMS (final year) and postgraduate residents of SHL (1st year) were included in study. Incomplete forms and those who do not give consent were in exclusion criteria.

After approval from ethical committee, population with eligibility criteria were counselled and informed consent was taken regarding study. Detailed proforma was designed and google form was generated to record participant’s perception and knowledge of soft skills.

Data were analyzed using IBM SPSS version 26. Descriptive statistics were used. The results were reported as frequency and percentages and p value < 0.05 was considered statistically significant using Chi-square test.

**RESULTS**

The sample consisted of 192 participants divided in two equal groups. Table 1 shows the characteristics of the study participants, divided into undergraduate students and postgraduate students(doctors). The mean age for under-graduate students was 18.99±0.95 years, while for postgraduate students(doctors), it was 27.99±0.95 years. In terms of gender distribution, among undergraduate students, 50 participants (52.1%) were female, and 46 participants (47.9%) were male. Among postgraduate students, 62 participants (64.6%) were female, and 34 participants (35.4%) were male.

Perception and knowledge of six essentially required soft skills were studied. Significant difference was observed between post graduate trainees and medical students in the ability to effectively educate and motivate the patients regarding treatment plans (84.4% vs 15.6% p value <0.0001), ability to make and justify problem solving plan in critical situation (83.3% vs 16.7% p value 0.0001) and ability to manage ethical conflicts (82.3% vs 17.7% p value <0.0001) while no significant difference is observed in the ability to work as team in difficult situation (93.8% vs 88.5%; p value=0.2044), ability to

*Table 1: Characteristics of Study Participants*

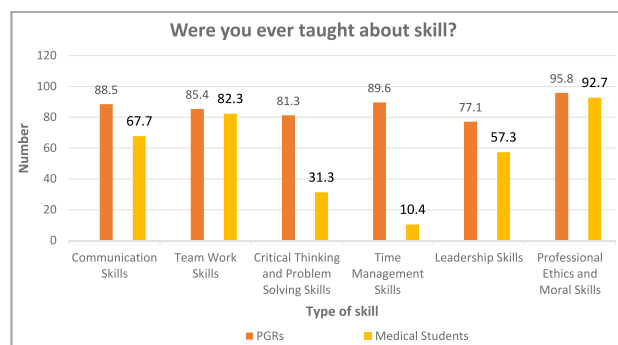
Variable	Undergraduate students	Postgraduate students
Age(mean)	22±1 years	27.99 ± 0.90 years
Sex (frequency/percentage)		
Female	50(52.1%)	62(64.6%)
Male	46(47.9%)	34(35.4%)

complete task at designated time (94.8% vs 95.8%; p value 0.99), and ability to supervise activities as leader (89.6% vs 89.6% p value 0.99) in both study groups as shown in table 2.

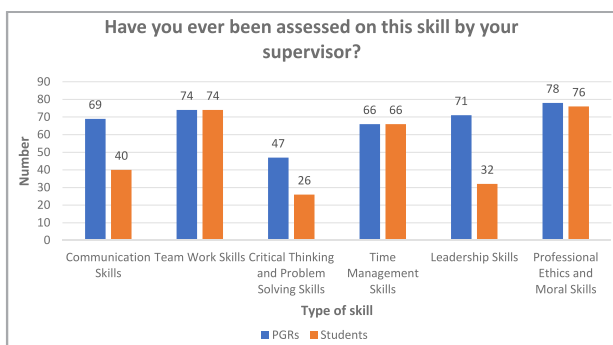
**Table 2:** Perception and knowledge of common soft skills

Variables	Post graduate Trainees		Medical Students		P value
	n = 96		n = 96		
Elements and sub-elements	Yes		Yes		
<b>1. Communication skills</b>	f	%	f	%	
Think about a situation where a complex case was given to you for management. Do you think you have the ability to effectively educate and motivate the patients regarding the treatment plan?	81	84.4%	43	44.8%	<0.0001
<b>2. Team work skills</b>					
Think of a situation where you have to prepare a collaborative poster/ oral presentation with someone difficult to get along with .Do you think you have the ability to work in a Team?	90	93.8%	85	88.5%	0.2044
<b>3. Critical thinking and problem-solving skills</b>					
Think of a situation where you had to present/justify the treatment plan of a complex case. Do you think you have the ability to do it?	80	83.3%	41	42.7%	<0.0001
<b>4. Time management Skills</b>					
Think of a situation where you had to meet the deadline of an academic/ research task. Do you think you have the ability to manage such a task timely?	91	94.8%	92	95.8%	>0.9999
<b>5. Leadership skills</b>					
Think of a situation where you are in charge of an activity (blood donation camp etc). Do you think you have the ability to supervise and lead such an activity?	86	89.6%	86	89.6%	>0.9999
<b>6. Professional Ethics and moral skills</b>					
Think of a situation where your peer has mismanaged a case due to negligence and now the patient is threatening to sue the doctor (your peer). Do you think you have the ability to manage such ethical conflicts?	79	82.3%	31	32.3%	<0.0001

Significant difference was observed between post graduate trainees and medical students in their perception of being taught of communication skills (88.5% vs 67.7%; p value 0.0005), critical thinking & problem solving skills (81.3% vs 31.3%; p value 0.0001), time management skills (89.6% vs 10.4%; p value 0.0001) and leadership skills (77.1% vs 57.3%; p value 0.0035). No significant difference between two groups was found in team work skills (85.4% vs 82.3%; p value 0.55) and professional ethics & morals skills (95.8% vs 92.7% p value 0.534) in both teaching groups. (Figure 1)

**Figure 1.** Perception on teaching of common soft skills

Study showed a significantly higher proportion of post graduate trainees compared to medical students had been assessed on their communication skills (71.9% vs 41.7%; p value 0.00003), critical thinking & problem solving skills (49.0% vs 27.1%; p value 0.0018) and leadership skills (74.0% vs 33.3% p value 0.0001) by their supervisors but there was no significant difference in assessment of team work skills (77.1% vs 77.1%; p value 0.99), time management skills (68.8% vs 68.8% p value 0.99) and professional ethics and moral skills (81.3% vs 79.2% p value 0.71) by the supervisor between two groups as shown. (Figure 2)

**Figure 2:** Assessment of soft skills

## DISCUSSION

The present study aimed to assess the perception and knowledge of six essential soft skills among pre-medical undergraduate students and postgraduate residents. The participants were divided into two equal groups, and significant differences were observed in the assessment of certain soft skills between the two groups.

The findings indicate that there was a significant difference in the perception and knowledge of communication skills to effectively educate and motivate patients, critical thinking and problem-solving skills in critical situations, and professional ethics and moral skills to manage ethical conflicts between the medical undergraduate students and postgraduate residents which is similar to other studies.<sup>10</sup> These differences suggest that the postgraduate residents, who have had more clinical experience and exposure to patient care, may have developed a higher level of proficiency in these specific soft skills compared to the premedical undergraduate students. The results highlight the importance of clinical experience in enhancing these essential skills, which are crucial for healthcare professionals in their interactions with patients and ethical decision-making processes.

On the other hand, no significant differences were observed in the ability to work as a team in difficult situations, ability to complete tasks at designated times, and ability to supervise activities as a leader between the two study groups. These findings indicate that both undergraduate students and postgraduate residents had similar perceptions and knowledge regarding these particular soft skills which is similar to other study.<sup>11</sup> It suggests that these skills may be taught and emphasized at both levels of education, and further improvements may require focused interventions targeting these specific areas.<sup>12</sup>

When comparing the teaching of soft skills between the two groups, it was found that there was no significant difference in teamwork skills and professional ethics and moral skills.<sup>13</sup> This indicates that both medical undergraduate education and post-

graduate residency programs might be providing similar emphasis on these skills. However, significant differences were observed in the teaching of communication skills, critical thinking and problem-solving skills, time management skills, and leadership skills<sup>14</sup>. These differences suggest that the postgraduate residency programs may offer more comprehensive training and instruction in these particular soft skills compared to medical undergraduate education. It implies that there is a need for enhancing the teaching methodologies and curricula in medical undergraduate education to bridge the gap in these areas.

In terms of the assessment of soft skills, significant differences were observed in the assessment of communication skills, critical thinking and problem-solving skills, and leadership skills between the two groups.<sup>14</sup> This indicates that the postgraduate residents were perceived to have higher proficiency in these skills compared to the medical undergraduate students. However, no significant differences were observed in the assessment of teamwork skills, time management skills, and professional ethics and moral skills.<sup>12</sup> These findings suggest that while both groups may possess comparable abilities in these specific soft skills, there might be room for improvement in their assessment and training.

It is important to note that the findings of this study are limited to the specific sample size and context of medical undergraduate students and postgraduate residents. Further research involving larger and more diverse samples would provide a broader understanding of soft skills in healthcare education. Additionally, incorporating longitudinal studies to assess the long-term development and retention of these skills would be beneficial.

Overall, the results of this study emphasize the importance of integrating soft skills training into healthcare education programs. The findings suggest that there are variations in the perception, knowledge, teaching, and assessment of different soft skills among premedical undergraduate students and postgraduate



residents. Efforts should be made to enhance the teaching and assessment methods of communication skills, critical thinking and problem-solving skills, time management skills, and leadership skills at both levels of education. By improving the development and evaluation of these essential soft skills, healthcare professionals can enhance their effectiveness in patient care, ethical decision-making, and overall healthcare delivery.

## CONCLUSION

Postgraduate medical residents exhibit stronger aptitude in essential soft skills as compared to medical students, therefore efforts should be made to integrate soft skills in healthcare educational program for better patient care and prepare medical students and residents for the multifaceted challenges they will face in their careers.

### Ethical Approval:

The ethical Approval was obtained from SIMS/Services Hospital Lahore. (Reference No. IRB/202/1044/SIMS)

**Conflict of Interest:** *None*

**Funding Source:** *None*

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