ORIGINAL ARTICLE

A NEED ANALYSIS FOR TEACHING LEADERSHIP SKILLS TO MEDICAL STUDENTS IN PAKISTAN

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Background: Perspectives of practicing medicine have rapidly changed due to global shift and interconnectedness. Doctors who do not develop their leadership skills may lack the acumen to make significant choices which enhance the quality and effectiveness of care. Pakistan is one of those countries that have not yet introduced the leadership skills training for undergraduate medical students. Aim of this study was to perform "a perceived need analysis for teaching leadership skills to undergraduate medical students in Pakistan". **Methods:** The study was designed using phenomenological approach to gain detailed insights into what the research participants think about leadership. Qualitative methods were used for data collection and analysis. Data were collected from fourteen medial students in their 3rd, 4th and 5th year and eight staff members of medical colleges through semi-structured interviews and focus group discussion respectively. Thematic analysis was used for data analysis. **Results:** Participants agreed that leadership skills are necessary for successful medical practice and can be learnt with timely and proper guidance. Need to introduce a leadership curriculum for undergraduates was recognised to acquire skills for pressure handling before entering clinical practice. The view was common that doctors in Pakistan are good at clinical skills but have no or weak leadership skills, affecting their clinical practice. Transformational leadership that encompasses behaviours resulting in empowering, inspiring and challenging the followers to make them capable of reaching their full potential was recommended necessary for developing successful physician leaders. Simulated scenarios, case-based learning, lecture-based modules and peer-led case discussions were suggested as the useful methods for course delivery. Formative method of assessment with feedback was suggested rather than summative assessment. **Conclusion:** There is a perceived need to introduce a leadership course in early years of medical curriculum of Pakistan, as participants acknowledge the importance of clinical leadership and depicted the preparedness to have leadership education implemented in the curriculum.

Keywords: Curriculum; Education, medical; Undergraduate; Leadership; Students, medical

Citation: Riaz S, Tabassum M. A need analysis for teaching leadership skills to medical students in Pakistan. J Ayub Med Coll Abbottabad 2021;33(1):75–81.

INTRODUCTION

Leadership is about practicing a certain and determined influence on people for achieving set goals with an emphasis on directing colleagues and followers individually or in teams.[1,2] In today's ever-changing world, perspectives of practicing medicine have changed and demand that physicians must be effective leaders, so they can perform in diverse clinical teams and direct the healthcare organizations.[3] Physicians have to collaborate over the provision of integrative care, which demands improved communication skills and teamwork.[4,5] This directs to the fact that ability to manage and lead is vital for providing excellent patient care[6] because it increases the ability to delegate, working in a team and effectively communicate.

As per recommendations of The Institute of Medicine (IOM), academic leaders should flourish in their abilities, so they can manage departmental and organizational changes required to modernize health and patient care.[5] This leadership being related to the health profession and patient care, effective communication skills and the capability of building good relationships are the most significant and associated skills for healthcare leaders.[7] Developing these skills in healthcare leaders will result in increased responsibility and autonomy to act in difficult situations and to practice through support and mentoring.[7] Notwithstanding, very few healthcare education-providing institutions have leadership curricula in place.[5]

The medical program of Pakistan was originally taken from Britain after the subcontinent was partitioned in 1947.[8] Since then, there is almost no change in the medical curriculum,[9] and due to that traditional medical education system still in practice, debate on incorporating healthcare leadership training for undergraduates has not yet started. Lack of evidence and problem-based learning has resulted in considerable uncertainty about the future of medical graduates, as they face difficulties in solving the cases independently when they start clinical practice.

According to the last curriculum review held in 2016 by Pakistan Medical and Dental Council (PMDC), the medical curriculum should be altered to bring medical education to par with international standards.[10] As medical schools in Pakistan are in the process of upgrading their curriculum, most of the studies conducted are only about changing the teaching methods, integration and orientation of the medical curriculum. This study was an attempt to fill the gap and to inform the policies of PMDC, which at this stage is only considering changing the discipline-based system to a modular system and altering the teaching methods used in the medical institutions.

Our research question was "What is the perceived need for teaching leadership skills to undergraduate medical students in Pakistan." The objectives involved:

- Exploring the understanding of healthcare leadership in staff members and medical undergraduates in Pakistan
- Exploring the awareness of needs, beliefs and potential barriers to propose this initiative in Pakistan
- Discovering when to introduce the leadership skills program and how to make this initiative work

MATERIAL AND METHODS

The study was conducted using a phenomenological approach and qualitative design. Phenomenology allows identifying the phenomenon to be studied and how it is experienced and perceived by the participants.[11] This approach was appropriate for this research as it intended to explore perceptions of students learning in the clinical environment and staff members who have already worked in the clinical environment, on introducing the leadership skills curriculum. Subsequently, using a phenomenological approach allowed to gain detailed insights into what the research participants think about leadership.

Data was conducted from undergraduate medical students and staff members of medical colleges in Pakistan. Ethical approval for commencing the research was taken and the Helsinki Declaration of 1975 was also followed. Invitation emails were sent to the participants selected in the sampling along with the information sheet and consent form. Qualitative methods, i.e., focus group discussion (FGD) with staff members and semi-structured interviews with students were used for data collection. As it was a phenomenological study, it involved a small sample of participants to obtain an in-depth account of participants' perceptions, instead of a large sample with general statements.[11] Critical case sampling[12] was used to select eight staff members, based on their qualifications and work experience to gather maximum information which can be most effective in developing the knowledge. Random purposeful sampling[12] was used to select twenty students in their 3rd, 4th and 5th year as they had exposure to ward-based clinical teaching at that stage. However, data collection from students was stopped after fourteen interviews as saturation in the responses was felt.

All the interviews and FGD were audio-recorded to maintain completeness and accuracy; and were then transcribed verbatim for analysis. Interviews with students were conducted individually during the time agreed with them. Students' interviews lasted about 20 minutes and FGD with staff lasted for about 50 minutes. Table-1 and Table-2 show the questions asked in FGD and interviews respectively, and the objectives with which they were aligned with.

Data was iteratively revisited for analysis which was done using the thematic analysis approach so that a systematic element is present which confers the accuracy and intricacy.[13] Phrases and sentences from the answers were used as the unit of analysis. Responses were organized in different themes according to topics, ideas and concepts[14] and then codes were assigned to each theme. The coding process was deductive as the theoretical base for the study was established before the data collection.[15] All the codes were accumulated under the five main themes (Figure-1).

RESULTS

Figure-1 shows themes and detailed codes emerged from data, which are explained below.

Both the staff members and students depicted the understanding of clinical leadership and showed their interest towards it. Most of the students strongly agreed that leadership skills are necessary for a physician. All the staff members except one agreed that leadership skills are necessary for physicians as they not only have to lead their teams but also must provide the best possible patient care. Staff member with the contradictory response tried to justify that leadership skills are not that much important as better clinical skills and patients need better doctors not better leaders. According to him:

"It can be a plus point if a doctor has leadership qualities, but clinical skills are more important."

Teaching leadership skills was also taken as extra workload for the students. Overall, twenty-one out of twenty-two participants showing interest in leadership skills depicts that awareness of healthcare leadership is present at the student as well as staff level. Importance of leadership skills for the physicians was viewed in relation to the patients' treatment in the critical situation, improved patient care, doctor/patient relationship and managing the available resources. One of the students responded:

"Doctors must possess leadership skills, so they are able to take the right decisions regarding the patients in difficult situations."

A mixed response was found on the question that whether leadership can be learned, or it is a born quality. Most of the staff members thought that leadership is a born quality, but it can be learned if quality education and guidance are provided to undergraduates, especially through hands on experience along with clinical practice. It was emphasized that leadership skills course should be introduced for undergraduates. Less competence of doctors in leadership skills was also highlighted by both students and staff members. Staff members asserted that physicians don't get the opportunity to develop or polish their leadership abilities due to no leadership training when they were undergraduates. Need to introduce leadership skills course was strongly acknowledged, so undergraduates can gain the skills required for handling the pressure situations in their clinical practice. For example, a student responded:

"*Leadership course will be helpful in learning what currently is missing in our doctors, only if activities are planned in a way that doesn't add too much work for the students*."

One of the staff members commented:

"Our doctors often get under pressure when they have to take difficult decisions in critical situations and are not also aware of how to manage the available resources to get the best results."

Responses show that students' exposure to clinical cases and ward-based teaching have given them an understanding of skills required for better healthcare and skills required for the physicians to provide it. Students understand that better communication skills are the key to teamwork, which in turn improves decision making, resource allocation and time management. Decision making in the critical situations, however, was the main skill which is dependent on effective leadership. A student responded:

"Able to take decisions in the critical situation is the must-have skill for a physician leader. Allocating resources efficiently and communicating effectively with team members are also key characters for doctors to lead successfully."

Another participant responded:

"Skills like decision-making, time management, situation awareness and conflict resolution are important for successful physician leaders, but the key is to work successfully as a team member, and ability to communicate and interact effectively with fellow members."

Along with some responses on medico-legal issues, development of personal traits like self-confidence, creativity, self-motivation, professionalism and empathy were also viewed as important to develop a physician leader.

Starting course from first or second year was suggested by staff members, so students can have good 4-5 years to learn and experience the leadership skills along with their ward based and clinical learning without feeling a burden. One participant responded that:

Leadership skills can't be learned in one or two sessions; they need time to be practiced and can get better over the time. Starting the course from early years will allow students to learn gradually."

Experiential learning was the most suggested method of delivering the course. Simulated scenarios, case-based learning, informal teaching during ward rounds, lecture-based modules, peer-led case study discussions and small group sessions were suggested as the useful teaching methods, as they enhance experiential learning. Participants emphasized using simulated scenarios even though simulation is not very commonly used teaching tool in Pakistan. One of the participants commented:

"I know simulation is not practiced in Pakistan as a teaching tool, if it is used to teach leadership skills it will help medical students through experimentation and application through repeated practice."

A consensus was made for formative methods and staff members emphasized that use of summative or written assessments could result in reducing the interest of students. Focusing mainly on formative assessment in the form of tutor observations during the ward-based teachings, simulated sessions and small group teachings were suggested along with few summative assessments like written assignments. Individual student feedback and peer assessment were also viewed as helpful in assessing the leadership skills. However, staff members showed an understanding of the fact that measurable methods for assessment should be used, so students consider learning important.

Policies of PMDC and traditional education system were indicated as the major barriers to introducing the leadership curriculum by staff members. Most of them agreed that students might take leadership course as a burden in an already packed curriculum, but they might also feel encouraged knowing that leadership skills are necessary for successful clinical practice.

Another major barrier to introducing such course or obstructing the students' interest towards the course was lack of availability of trained doctors to teach the course. Participants responded that some senior doctors who are not in favour of introducing the leadership skills course might show negative attitudes to teach the course, drifting off the interest of students.

Table-1: Staff members FGD questions aligned with the objectives of the study

Focused Group Discussion Objectives (with staff members)
• To explore what leadership looks like to staff members in Pakistan • To explore what is the perceived necessity for learning leadership and management skills in undergraduate medical education • To explore what faculty members believe to be the best time at which leadership and management skills course should be taught • To explore ideas of what teaching and assessment methods to be used for the course • To explore if there are any possible cultural barriers for introducing this course in Pakistan
Focused Group Discussion Questions (with staff members)
1. How necessary are leadership skill for a physician? 2. Is leadership a quality or skill that can be learned over the time? a. Where do you think today's doctors in Pakistan stand as physician leader? 3. What difficulties do they face when it comes to leading their team? 4. What are your thoughts on introducing a leadership skills training course for undergraduate medical students? 5. If the leadership skills course is introduced, in which year of medical education it should be taught? a. And why? 6. What teaching methods you think should be used to teach such course? a. Why your suggested method is useful in teaching leadership skills? 7. Which assessment methods should be used to assess leadership and management learning? 8. How your suggested assessment method is useful? 9. What are the factors you think can obstruct or encourage medical undergraduates' interest regarding learning of leadership and management skills?

Table-2: Student interview questions aligned with the objectives of the study

Semi-Structured Interview Objectives (with students)
• To explore what leadership looks like to staff members in Pakistan • To explore what is the perceived necessity for learning leadership and management skills in undergraduate medical education • To explore what skills are thought to be necessary to be taught for becoming good leaders and managers in medical practice
Semi-Structured Interview Questions (with students)
1. How necessary are leadership skill for a physician? a. Can you give some examples? 2. Is leadership a quality or skill that can be learned over the time? 3. Where do you think today's doctors in Pakistan stand as physician leaders? a. Can you give an example if they face any difficulties when it comes to leadership their team? 4. What are your thoughts on introducing a leadership skills training course for undergraduate medical students? 5. Which leadership knowledge skills in your opinion are necessary for successful physician leaders?

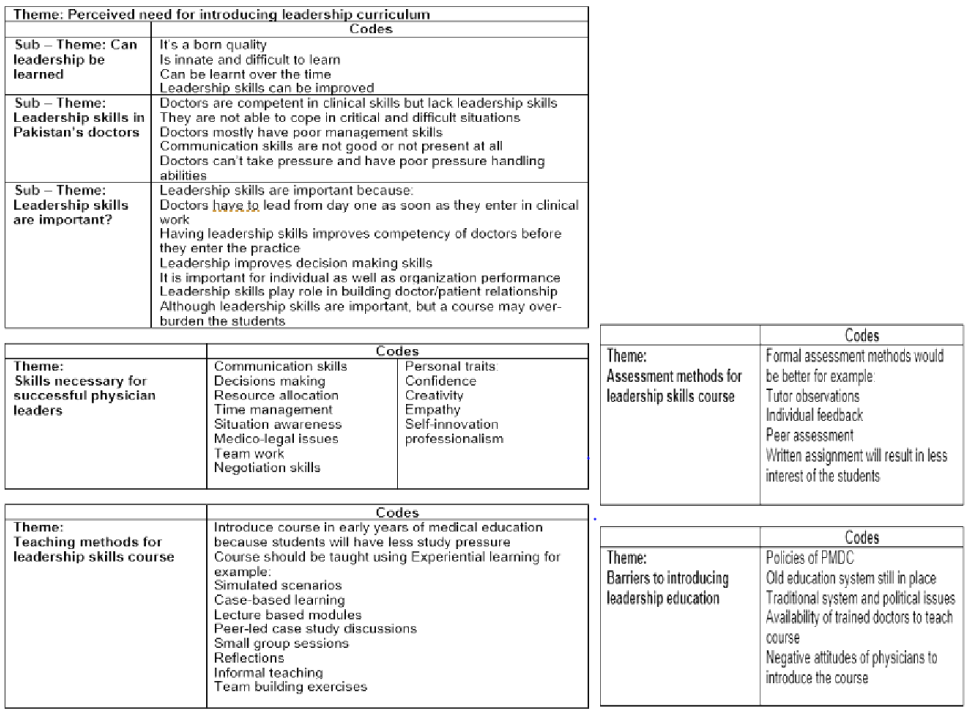

Figure-1: Themes and codes emerged after data collection

DISCUSSION

Informing the main research question of this study, both staff members and students have depicted the understanding of leadership skills and realized that if clinicians want to provide a good standard of healthcare, they need to possess leadership skills. This finding corresponds with the assertions in the literature that clinicians participate in better patient care if they develop the skills of leadership and management.[16,17] Most of the students and staff members responded that physicians in Pakistan are good in clinical skills but possess less competence in leadership skills and this affects the patient care and their workplace environment. It is significant to realize that without the clinical leadership skills, doctors are not able to use their experiences and expertise to assure that needs of the patients are the major focus in the goals and delivery of the organization where they work. This parallels with the findings of Jonas, McCay & Keogh[18] that clinical leadership is fundamental at all levels in healthcare organizations for developing optimal patient care and altering facilities to accomplish advanced levels of excellence.

It was also established from the results that if medical students practice management and leadership activities from the early years of medical education, it may help them to achieve leadership skills that are necessary to possess for their clinical practice. This correlates with the assertion of Capowski[19] that leaders are not innate, in fact, they are made by hard work and determination. Advancing this, if leadership is integrated through approaches like problem-based and experiential learning[19] from early years of medical education, it would help in training future doctors who recognize the type of leadership required and possess a well-developed set of qualities. Skills and qualities identified by the participants correlate with the skills of a transformational leader, who has abilities like idealized influence, individual consideration, intellectual stimulation and inspirational motivation.[20] This finding was consistent with the suggestions in the literature[5,21] that doctors need to possess transformational style leadership. As probed by Swanwick,[22] this style is perhaps a suitable approach for physicians because such leaders are "competent enough to release the human potential through empowerment and development".

Developing a leadership curriculum that meets the learning needs and preferences of undergraduates in Pakistan would be a challenge for curriculum planners. One of the major challenges will be to acquire a competency framework that can highlight the main areas of capabilities required according to the beliefs, culture and available resources in Pakistan. Medical Leadership Competency Framework (MLCF)[23] and Leadership Quality Framework (LQF),[24] which are the most comprehensive and detailed frameworks about leadership education for undergraduate students can be adapted as a guide. These frameworks enable doctors to demonstrate a variety of leadership behaviour in different domains including transformational leadership qualities. However, it would be better in the scenario of Pakistan to introduce one domain at a time so it can gradually enable students along with putting less pressure on them.

Experiential learning was strongly suggested which can be provided to students by administrative and leadership activities in the classroom, organized rotations, and activities in the community.[25–29] Simulation-based teaching would be effectively used to develop leadership skills as it will allow students to experience diverse strategies, different approaches and establish a better recognition of key aspects of clinical leadership.[30] While using case-based learning, reflection on previously solved cases can be helpful to provoke the thinking process about leading in difficult situations. Informal teaching during ward rounds and clinical teaching can also play a role to integrate the learning of leadership skills and reduce pressure on students rather than separately teaching them. Moreover, exercises like time management, resource allocation and team building can also be integrated during clinical teaching to train the students.

Although participants did not favour using summative assessment, it will be beneficial to design assessment methods once the leadership skills curriculum is developed and implemented. Different assessment tools that are fit for the purpose like tutor observations while handling the critical cases and demonstrating leadership skills, theoretical writing, short answer questions, individual or group development projects and presentations can be adapted bestowing local needs.[31]

Thinking point after the study arises that if understanding and realization about healthcare leadership are present at all levels, why it is not still introduced in the curriculum. The major barrier highlighted was policies of PMDC and a systemic cultural issue, which can be broken if public-sector medical schools, senior physicians and curriculum planners make efforts and persuade PMDC to alter its policies by presenting recent researches and innovations in medical education around the world.

Being a qualitative study based on purposeful random sampling, it has limited generalizability. The basic aim of the study was to

gain insight into students' and teachers' perspectives about leadership skills and their readiness for the introduction of leadership training in the undergraduate curriculum, and the results have provided the base for a research at a larger scale. Therefore, further research is recommended by utilizing the themes emerging in this study to generate a questionnaire and develop a large-scale survey to increase the generalizability of recommendations.

CONCLUSION

A perceived need of incorporating leadership education into the medical curriculum of Pakistan has been felt at both the staff and student levels. Doctors in Pakistan are good at clinical skills, but their performance is compromised because of not possessing leadership and management skills. This leads towards the perceived need of introducing leadership training at the undergraduate level to prepare future physicians who can provide optimal patient care in Pakistan and can overcome the problems of the clinical workplace. Study findings suggest that attitudes are changing overall in Pakistan regarding medical education and healthcare leadership. Most importantly, both staff and undergraduates have shown interest and preparedness that leadership education must be included in the medical curriculum. The gap in the curriculum of Pakistan is less likely to be attitudes and understanding of students or teachers, more likely it is because of the opportunity to start the leadership education.

Preparing undergraduates to become leaders requires continued training across the whole medical curriculum but it is important that leadership education must start in the early years of medical education. Transformational leadership qualities were viewed as the optimal competencies for physician leaders. Although it will be a challenging task for curriculum planners to integrate a leadership course in the already packed undergraduate curriculum, an integrated approach can be used by embedding the leadership skills teaching through experiential and problem-based learning during clinical teaching. However, further work is required to explore different teaching methods keeping in view the skills and abilities of the students in each year. Even though summative assessment can be burdensome in an already packed medical curriculum, assessment methods followed by targeted support and feedback must be aligned with the teaching methods to achieve the desired results.

Conflict of interests: Authors confirm that there is no conflict of interests to declare.

Ethical Approval: This research was part of Master's thesis and hence the ethical approval (Reference # SMED REC 049/17) was taken from the Research Ethics Committee of School of Medicine of University of Dundee, UK.

AUTHORS' CONTRIBUTION

SR: Concept, design, data acquisition, data analysis, manuscript revision, final approval of manuscript for publishing. MT: Manuscript drafting, revision, editing according to journal's specification.

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Submitted: April 13, 2020	*Revised: August 13, 2020*	*Accepted: November 8, 2020*

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