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Leadership skills in postgraduate medical residents: Assessment of leadership training needs of resident trainees in Pakistan

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Abstract---Background of the Study: Safe patient care is the fundamental objective of every healthcare facility by the services provided by high performing healthcare providers with effective leadership skills. Leadership competencies are considered now as essential for all medical trainees, not only to face challenges at individual level but it also helps them solving certain institutional and interpersonal challenges. Aim: To assess the current leadership training needs of postgraduate medical resident undergoing training in different hospitals of the Pakistan. Methods: This was a cross-sectional online quantitative survey. A request link of online google survey form was sent to the residents through social media residents' groups and through email addresses of residents to fill the form. Results: A total of 67 residents of all years completed the survey. Mean age of the residents was 30.63 ±3.87, with about 81% being male and 84% were getting done their residency training in specialty related to medicine and allied. On a Likert scale (1 = strongly disagree, 3 = neutral, 5 = strongly agree), residents rated the importance of leadership skills in the clinical setting as high (4.15 of 5). The most commonly rated leadership skills included problem solving (65 % of the residents thought they need such leadership skill training), leading a team (52.2%), resolving conflicts (48.1%), effective communication (46.3%) and establishing and playing role in achieving institutional organizational goals (24%). Majority of residents thought that regular refresher leadership training if conducted would be

valuable to strengthen their leadership skills. Conclusion: There is an immense need of regular training to build leadership competencies in residents as effective clinical leadership is critical to the quality improvement efforts. Standardized approach to leadership training may be cornerstone to quality patient care.

Keywords--leadership skills, postgraduate medical residents, assessment, resident trainees.

Introduction

Leadership is seen as a crucial skill for doctors, regardless of whether they have a formal leadership role^{1, 2}. To address the difficulties of future health care, that could be resolved via leadership in management and provision of high-quality, cost-effective care while guaranteeing patient safety, it is important to develop leadership abilities. However, there is no assurance that residency training programmes would explicitly pay attention to leadership development despite the general agreement on the significance of these skills for medical practice. Most universities and hospitals do not plan leadership training to their students, resident, or employees³⁻⁵. As a result, residents acquire their leadership skills via self-education. Their understanding of leadership is largely implicit and learned via experience, such as through seeing the actions of their supervisors and thinking back on real-world events⁶. Does the existing medical profession itself provide adequate opportunities for leadership development via observation? It is crucial for residents to learn particular leadership behaviors from their supervisors in order to acquire leadership in practice; however it could even be very crucial for residents to do so throughout their training.

Physicians often serve as team leaders for diverse groups engaged in research, teaching, and patient care, but many have not received traditional leadership education^{7, 8}. Clinical leadership abilities are associated with improved patient outcomes and care, and developing these abilities benefits patients as well as health systems⁵. Because of this, numerous published studies⁷⁻⁹ and licensing agencies for graduate medical education in the United States and Canada^{10, 11} have made specific requests for training to develop formal leadership. The Accreditation Council for Graduate Medical Education places a strong emphasis on core resident abilities that incorporate particular leadership qualities (such as professionalism, communication and systems-based practices). These competencies are considered an essential part of residency training¹¹. A current randomized multicentre research has shown that leadership development programmes are beneficial in enhancing leadership abilities. In Canada, the model for core competencies of graduates currently experienced a significant change to emphasis on leadership, noting that "all physicians lead in their daily practice"^{12, 13}.

The effectiveness of cost containment and quality improvement initiatives depends on efficient clinical leadership¹⁴. Although there is no one, all-encompassing definition of leadership, effective leaders express and develop agreement around a vision, and they provide their team members the ability to

make decisions⁵. Clinical leadership is essential for physicians in the contemporary multidisciplinary practice environment to the standard of care and effectiveness of the organization⁵. There is evidence to support the idea that leadership training may enhance leadership ability¹⁵. However, leadership development is not emphasized in medical schools or residency programmes³. Furthermore, there is a lack of quantitative data to help build leadership training programmes for postgraduate medical residents, and we do not know much about their needs in this area. Therefore this study was carried out with the objective to assess leadership training needs of resident trainees in Pakistan

Materials and Methods

This was a cross-sectional online quantitative survey carried out by the *Institute of Health Professions Education & Research*, Khyber Medical University Peshawar. The survey was carried out from December 2018 to December 2019. The inclusion criteria for our study were all the post-graduate resident trainees willing to participate in our study whereas all the exclusion criteria were all the post-graduate resident trainees not willing to participate in our study.

A researcher from the Institute of Health Professions Education & Research at Khyber Medical University Peshawar, developed a Leadership Needs Assessment Survey to learn more about residents' expectations and priorities in this area about leadership training. A recently reported needs assessment survey was used as the basis for a number of the survey's questions (7). A 5-point Likert scale, a yes/no, a "choose all that apply," a "select just one," or a free-text style were all used to frame respondents' responses to survey questions. Dr. Usman Mehboob, director of IHPER KMU, examined the evaluation survey questions for both face and content validity. Through social media resident groups and resident email addresses, a request link for an online Google survey was sent to the residents, asking them to complete the form. The poll included questions regarding the demographics of the residents, their prior leadership experience, the observed desire for leadership development, and the desired training's structure and content. Participants had two months to complete the survey, and reminder emails were sent every two months. Microsoft Excel and IBM SPSS version 23 were used to analyze the data. For categorical outcomes, we compiled the data by number and percentage whereas mean and standard deviation was used for variables like age.

Results

A total of 67 residents of all years completed the survey. Mean age of the residents was 30.63 ±3.87 years. There were 54 (80.6%) males and 13 (19.4%) females in our study. Married participants were 27 (40.29%) while 40 (59.71%) participants were unmarried. The specialty of residency was medicine and allied 22 (32.84%) followed by pediatrics in 14 (20.90%), psychiatry in 13 (19.40%), surgery and allied in 12 (17.91%) and gynecology and obstetrics in 6 (8.95%). (Table 1)

On a Likert scale (1 = strongly disagree, 3 = neutral, 5 = strongly agree), residents rated the importance of leadership skills in the clinical setting as high (4.15 of 5). The most commonly rated leadership skills included problem solving (65 % of the

residents thought they need such leadership skill training), leading a team (52.2%), resolving conflicts (48.1%), effective communication (46.3%) and establishing and playing role in achieving institutional organizational goals (24%). Majority of residents thought that regular refresher leadership training if conducted would be valuable to strengthen their leadership skills. (Figure 1-7)

Table 1: Different parameters of 67 participants in our survey

Parameter	Sub-category	Frequency	Percentage
Gender	Male	54	80.6%
	Female	13	19.4%
Marital status	Married	27	40.29%
	Unmarried	40	59.71%
Specialty of residency	Medicine and allied	22	32.84%
	Surgery and allied	12	17.91%
	Pediatrics	14	20.90%
	Psychiatry	13	19.40%
	Gynecology and obstetrics	6	8.95%
Complete year of residency	1 years	00	00%
	2 years	5	7.46%
	4 years	33	49.25%
	5 years	29	43.28%
Current year of residency	Post graduate year 1	20	29.85%
	Post graduate year 2	6	8.96%
	Post graduate year 3	6	8.96%
	Post graduate year 4	17	25.37%
	Post graduate year 5	7	10.45%
	Completed	11	16.41%
City of training	Quetta	35	52.24%
	Peshawar	15	22.39%
	Islamabad	3	4.48%
	Karachi	7	10.45%
	Lahore	7	10.45%

1. I am in strong need of training in leadership competencies

67 responses

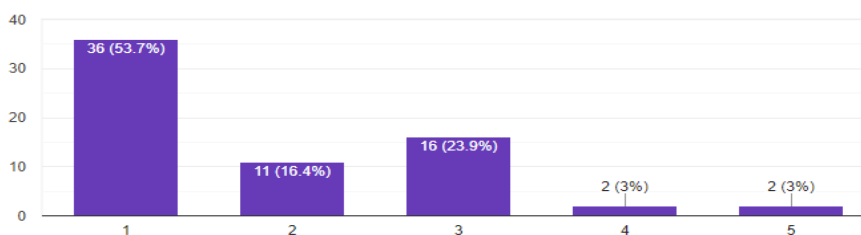


Figure 1

2. If I were to go through leadership training, I would want to be taught by the following people:



67 responses

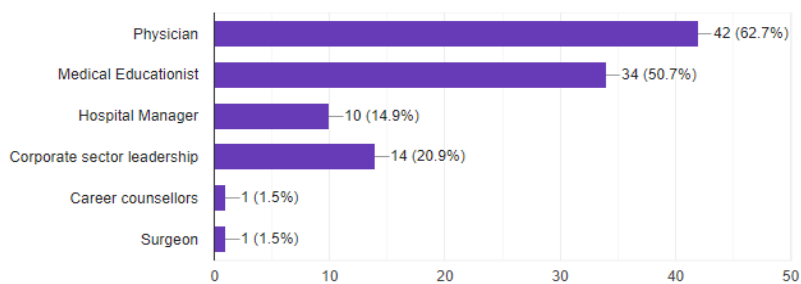


Figure 2

3. If I were to go through leadership training, I would prefer following venues for training:



67 responses

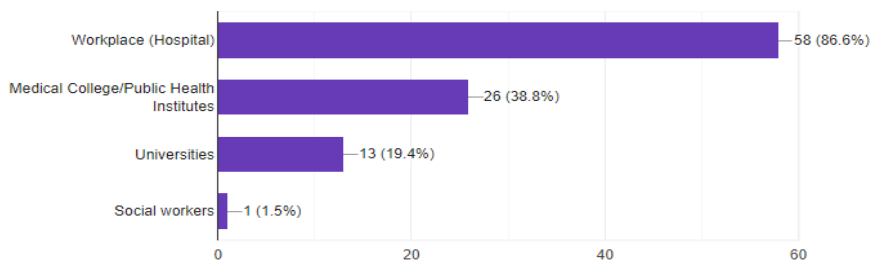


Figure 3

4. If I were to go through leadership training during residency, I would prefer the training to occur during the following time period:

67 responses

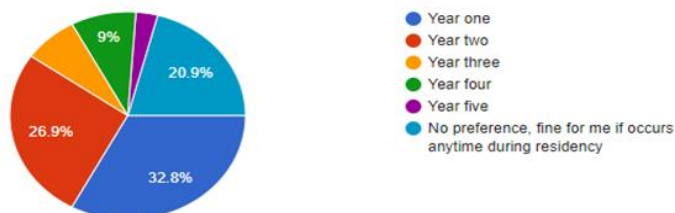


Figure 4

5. If I were to go through leadership training, I would prefer to be taught using the following teaching and learning methods:

67 responses

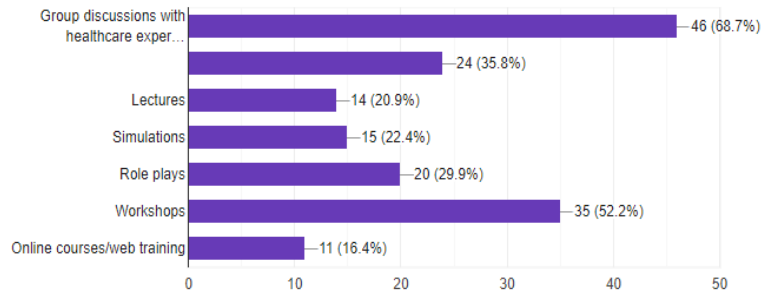


Figure 5

6. I would like to be trained in the following competencies:

67 responses

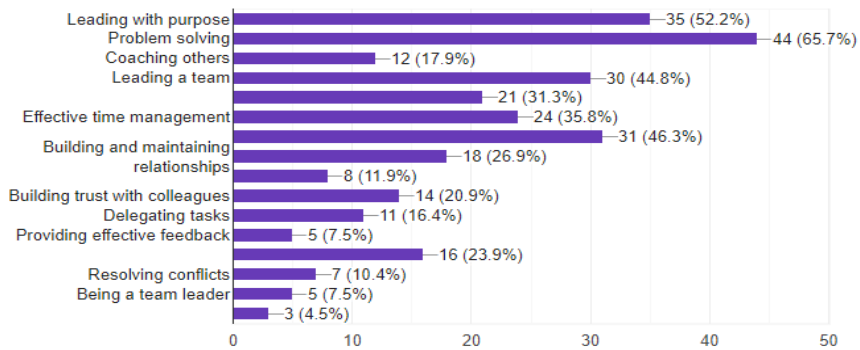


Figure 6

7. I believe on regular refresher leadership training for residents

67 responses

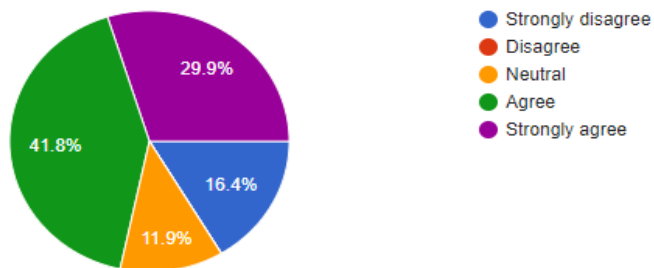


Figure 7

Discussion

Increased leadership training for medical students and residents has been demanded on various occasions ^{5, 8, 16}. Retrospective studies indicate that physician leadership improves patient outcomes ¹⁷. Evidence has also shown that residents are not ready for official or informal leadership positions after graduation ¹⁸. The development of a physician's leadership skills may arise via "accidental leadership" even in the absence of formal training ¹⁹. According to the literature, our study is the only study on the assessment of current leadership training needs of postgraduate medical resident undergoing training in different hospitals of the Pakistan.

The majority of survey participants agreed that clinical leadership effectiveness affects clinical care quality and reaffirmed the need for more formal leadership training in residency. According to an analysis of the relevant published research, the conventional instructional practices used at our institution as well as in most of medical schools and residency programmes located all across the United States do not satisfy this need ⁵. In our study, the most commonly rated leadership skills included problem solving (65 % of the residents thought they need such leadership skill training), leading a team (52.2%), resolving conflicts (48.1%), effective communication (46.3%) and establishing and playing role in achieving institutional organizational goals (24%). Majority of residents thought that regular refresher leadership training if conducted would be valuable to strengthen their leadership skills.

Our findings also showed that even formal leadership training and experiences gained before starting residency might not be sufficient to fully qualify Postgraduate Medical Residents for the leadership responsibilities they would serve as practicing clinicians. For instance, even though clinical teams are led by Postgraduate Medical Residents in numerous training programmes, including our own, 52.2% of residents stated they needed more specialized training in team leadership. This finding raises concerns regarding whether or not trainers have received the management training required to lead clinical teams successfully. There are a number of possible explanations for why survey participants would have preferred to hear about leadership from doctors instead of business school professors or administrators of hospitals or private firms. First, doctors seem to have more clinical expertise required to educate residents how to use leadership abilities in medical settings and might have a deeper understanding of the specific leadership issues experienced by Postgraduate Medical Residents. Additionally, residents could feel more at ease seeing and learning from different physicians. Our findings have far-reaching importance for the establishment of successful leadership development programmes. For instance, even though residents would choose to understand about leadership from other physicians, most doctors don't have much expertise teaching it, therefore curriculum planning may necessitate for working with subject-matter experts.

Study limitation

However, there are certain limitations to this approach. The ability of our study to find correlations between resident features and particular training requirements

for leaders might have been limited. The low rate of responses may have resulted in biasness, as people more engaged in leadership training might have been more inclined to complete the questionnaire. While we have concluded that our survey has high levels of face and content validity, we have not yet conducted any criteria or content validity analyses.

Conclusion

Our study concludes that there is an immense need of regular training to build leadership competencies in residents as effective clinical leadership is critical to the quality improvement efforts. Standardized approach to leadership training may be cornerstone to quality patient care.

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