

# TEACHERS' PERCEPTIONS OF THEIR ROLES IN THREE MEDICAL COLLEGES IN ISLAMABAD, PAKISTAN

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## ABSTRACT

**BACKGROUND** Defining the role of medical teachers in medical colleges is important to prepare them for this complex task. Harden has shortlisted 12 major roles of medical teachers. There is a need to study how medical teachers perceive these roles in Pakistani medical education environment.

**AIM** This study was conducted to understand teachers' perceptions of their roles and their teaching experiences in three medical colleges of Islamabad, Pakistan.

**METHODS** It was a cross sectional descriptive survey conducted on the faculty of the three private sector medical colleges in Islamabad, Pakistan. The study used a part of the 12-item questionnaire, developed by Harden and Crosby to measure the perceptions of faculty about their roles as teachers.

**RESULTS** A total of 85 faculty members filled the questionnaire. The majority of faculty members perceived most important role of medical teacher as information provider (87%) in lecture and clinical setting, followed by mentor and student assessor (82%). Most of the faculty rated all the roles as considerably important and the results were comparable with the ratings from Dundee University.

**CONCLUSION** The role of a medical teacher has extended beyond the boundaries of information provider over the past few decades. Pakistani medical and dental colleges employ thousands of teachers in basic medical and clinical sciences. It is important that the teachers are familiar with their multiple roles and have adequate training to perform them effectively. Once perceptions of teachers are understood about their roles, medical institutions can prepare faculty development programs to train teachers about their roles.

**KEY WORDS** Perceptions, Resource developer, Faculty development

This article may be cited as: Nawabi S, Khan RA, Yasmin R. Teachers' perceptions of their roles in three medical colleges in Islamabad, Pakistan. 2015;1(1):24-29

## INTRODUCTION

The trends of medical education in the 'classroom' as well as 'the bed side' are greatly changing with the incorporation of new learning technologies and advocacy of novel educational approaches.<sup>1</sup> Historically the major role of a teacher has been as 'the provider of information' rather than 'the facilitator of learning'. This paradigm has now changed with the emergence of the unlimited learning resources that

are accessible to medical students. Teachers are no more the sole provider of truth, but they should use their expertise to validate available information and guide students to find key issues that are relevant to their future practice. Parallel developments in educational psychology, information technology and rapidly expanding and changing information have altered the above paradigm.<sup>2</sup> Training 'tomorrow's doctors' now, needs change in educational thinking and learning strategies in

response to change in community expectations.<sup>3</sup> If medical education is to improve, this is largely dependent upon the attitudes of medical teachers towards their own teaching practice and their students' learning.<sup>4</sup> Change in attitudes needs, first of all self-analysis and awareness of one's own role and responsibility as medical educator, and then developing proper attitudes for execution of particular role.

Harden has identified 12 roles of a medical teacher.<sup>5</sup> These have been grouped into six areas based on medical and educational expertise.<sup>5</sup> The teachers are now required to become educational planners. Clinical teachers have the added responsibility of being role models in dealing with patients.<sup>6</sup> Communication skills and ethical issues can be learnt by

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Date Received: July 14, 2014

Date Revised: October 4, 2014

Date Accepted: November 20, 2014

observing teachers and students can learn from practice,<sup>7</sup> which is adding a new dimension to the responsibility of teachers to walk the talk and portray positive role models for their students. Medical teachers may perceive their roles differently depending on several factors, such as their own educational background, the educational environment of the institute and the level of their training as a medical teacher. It is important that medical teachers are aware of their roles and medical institutes have strategies to help teachers excel in their roles.

Several studies have been conducted globally to understand the perceptions of teachers about their roles and responsibilities. These studies indicate that teachers perceive their roles differently in different institutes. A case control study conducted at four teaching hospitals in UK, based on 'teaching by example' identified attributes of physicians associated with excellent role modeling.<sup>8</sup>

Mann et al. explored the perceptions of community medicine preceptors to understand their role as teachers. These teachers combined learner-centered approaches with sound educational practices, broad learning experiences, attention to student learning and concern for development of professional expertise and judgement.<sup>9</sup> Another study conducted in by Ernstzen on physiotherapy clinical educators revealed that these educators contribute to a productive learning environment through multiple roles, such as, demonstrator, assessor, mentor, knowledge provider and facilitator of learning.<sup>10</sup> These studies demonstrate that nature of the role of a teacher varies from specialty to specialty and from one learning environment to another.

Since Medical education is a high stake profession from perspective of community, effective teaching techniques are a requirement for doctors and can be learnt and perfected like any other medical skill. A passionate

teacher will be an asset to any medical department. This, coupled with the personal satisfaction of being an effective teacher, is the motivation to become a better medical educator.<sup>11</sup> There are thousands of teachers providing education in Pakistani medical and dental colleges. Teachers' perceptions have not been studied in Pakistan about their roles as teachers. This study was conducted to address the following research question. What are the perceptions of Pakistani medical education faculty about their roles as teachers? The aim of this study was to understand the perceptions of Pakistani medical faculty about their roles as teachers. The study will help in developing effective teacher and training strategies to help them excel in their teaching roles.

## METHODS

A cross sectional, descriptive, quantitative survey was conducted in all the three private sector medical and dental colleges of Islamabad. To maintain confidentiality, these college shall be called College A, B and C. The study used a section of the 12-item questionnaire that was developed by Harden and Crosby on the role of the teacher as given in AMEE Guide No. 20.<sup>5</sup> Baseline data included the name of the person (optional), age, designation, teaching experience and name of the department and the college. Participants were asked only one question about the 12 roles of the teacher; what is the importance of each of the roles mentioned in the questionnaire to your medical/dental school teaching programme? The participants were supposed to tick the importance of each role on a five point Likert scale, comprising of categories: (1) None; (2) Little; (3) Some; (4) Considerable and (5) Great. Before distribution, the questionnaire was pilot tested on five teachers from a medical college, not included in the study. The major purpose of pilot testing was to see the clarity of language and understanding of the terms used in

the questionnaire. No modifications were made in the roles of the teacher, as given in the original questionnaire.

Ethical committee approval was obtained and counter signed by co-chairperson of Rawal Institute of Health Sciences (RIHS). Ethics Board had no objections to the content of the survey. All participants were informed about the content and intent of study and were assured about maintenance of confidentiality regarding their names and the name of their institute. The Data from the three colleges was collected from June 2013 to December 2013.

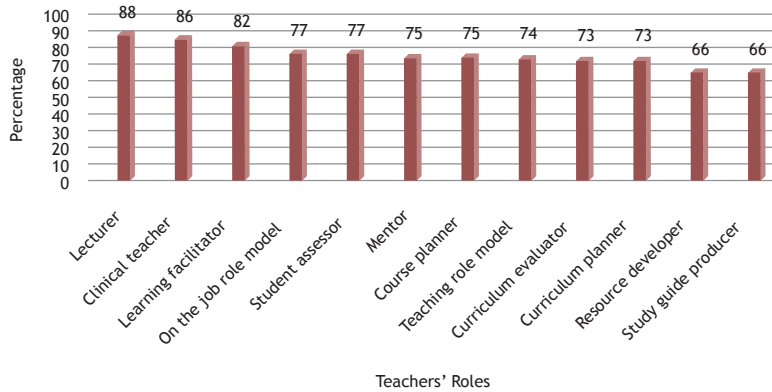
All faculty members from the three colleges, comprising of senior registrars, assistant professors, associate professors and full professors were included in the sample. Demonstrators and lecturers were not included in the study as they have relatively less experience in teaching and a significant number of them work on ad-hoc basis in the colleges. The total sample consisted of 120 faculty members from the three colleges. Questionnaire was distributed to and collected from all faculty members either directly by the investigator or through a focal person in each college.

Out of 120 senior faculty members 105 responded by filling questionnaire (33 from college A, 35 from college B and 37 from college C), after two rounds of follow up. Data was entered in statistical package for social sciences (SPSS) version 17 to determine mean scores of all the roles and perform other statistical analysis. Comparative analysis of every role according to institute, teaching experience and gender was done.

## RESULTS

Out of 105 questionnaires received, 20 had some missing data and were excluded from the study. Final data analysis was done on 85 questionnaires with adequate data available in analyzable form. The overall response rate for the study

**FIGURE 1: DISTRIBUTION OF THE ROLES OF THE TEACHERS IN THE THREE MEDICAL COLLEGES OF ISLAMABAD (N=85)**



**TABLE 1: DISTRIBUTION OF THE MEAN SCORES (WITH STANDARD DEVIATION) AS PERCEIVED BY ALL FACULTY MEMBERS IN THE THREE MEDICAL COLLEGES OF ISLAMABAD (N=85)**

Teachers' role	Mean	Standard Deviation
Role 1 Lecturer in classroom	4.2	.706
Role 2 Clinical or practical teacher	4.3	.822
Role 3 On the job role model	3.9	1.046
Role 4 Teaching role model	3.9	.978
Role 5 Mentor, personal advisor	4.1	.872
Role 6 Learning facilitator	4.1	.790
Role 7 Student assessor	4.1	.734
Role 8 Curriculum evaluator	3.9	.926
Role 9 Curriculum planner	4.1	.999
Role 10 Course organizer	3.9	1.078
Role 11 Study guide producer	3.3	1.002
Role 12 Resource material creator	3.9	.996

**TABLE 2: COMPARISON OF THE MEAN STUDY SCORES FOR THE THREE COLLEGES OF ISLAMABAD WITH THE MEAN STUDY SCORES FROM DUNDEE UNIVERSITY**

Teachers' role	Mean present study	Mean Dundee university	Mean difference	P value Significance (2-tailed)
Role 1 Lecturer in classroom	4.2	3.6	0.6	.000
Role 2 Clinical or practical teacher	4.3	4.2	0.1	.150
Role 3 On the job role model	3.9	4.2	-0.3	.052
Role 4 Teaching role model	3.9	3.6	0.3	.004
Role 5 Mentor, personal advisor	4.1	3.5	0.6	.000
Role 6 Learning facilitator	4.1	3.8	0.3	.001
Role 7 Student assessor	4.1	3.9	0.2	.017
Role 8 Curriculum evaluator	3.9	3.6	0.3	.000
Role 9 Curriculum planner	4.1	3.9	0.2	.178
Role 10 Course organizer	3.9	3.8	0.1	.271
Role 11 Study guide producer	3.3	3.6	-0.3	.069
Role 12 Resource material creator	3.9	3.5	0.4	.000

was 70.8%. There were 38 males and 47 females in the study, representing almost 1:1.2. Average age of the participants was 38 years and average teaching experience was 7 years. There were 25 senior registrars, 40 assistant professors, 13 associate professors and 7 professors in the study.

Majority of faculty members perceived the most important role of medical teacher as information provider in lecture and clinical settings (88% and 86%). They further perceived medical teacher as learning facilitator (82%), role model and student assessor (77%). The least important roles were perceived as resource developer and study guide producer (66% each). Figure 1 provides the distribution of the role of the teachers in the three colleges of Islamabad.

Faculty was asked about the relative importance of the role of the teachers. Table 1 provides combined mean scores for all the three colleges (n=85). It is evident from the Table that all the scores are located in close proximity, varying between 3.9 and 4.3, except teacher as study guide producer (Mean = 3.3). This indicates that faculty gives almost equally high value to the entire 12 role.

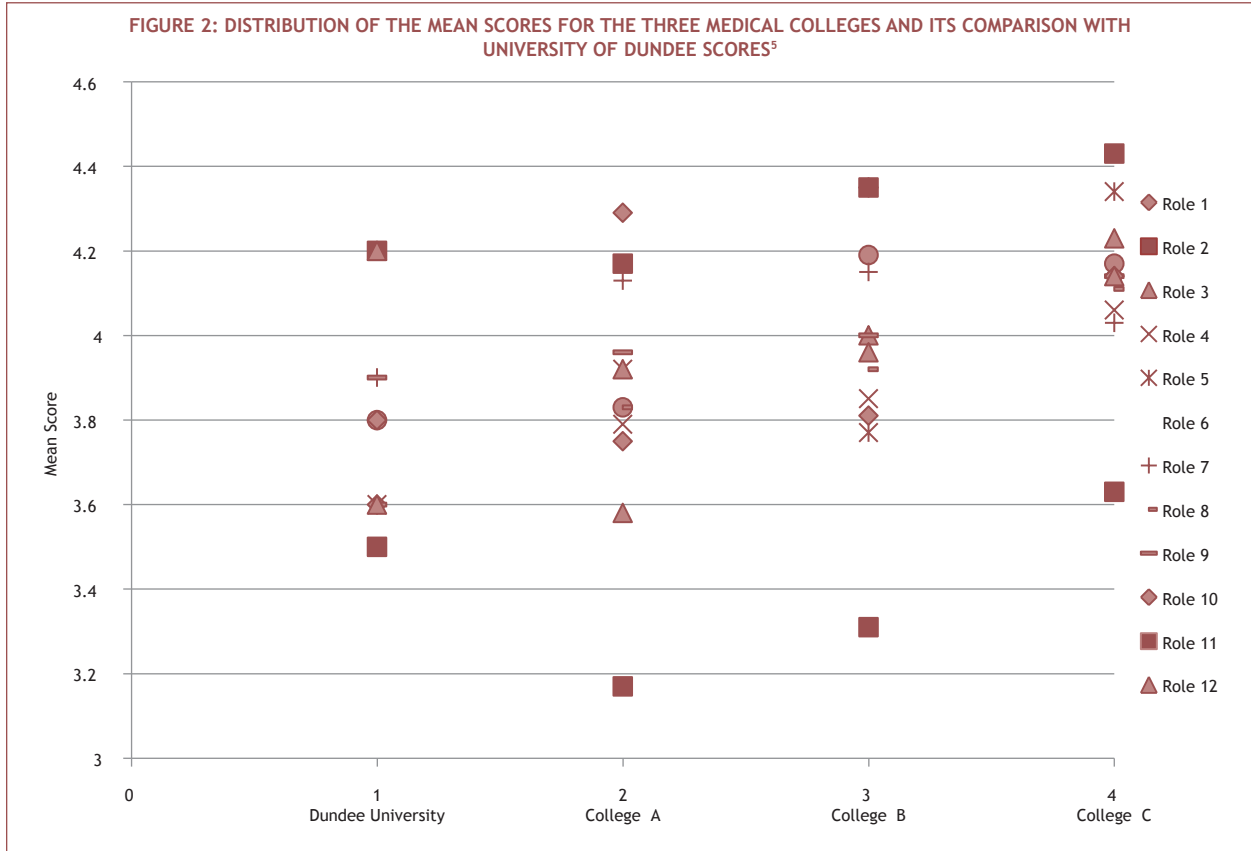


TABLE 3: MEAN SCORES OF PERCEPTIONS OF FACULTY WITH RESPECT TO GENDER

Teachers' role	Female faculty members	Male faculty members
Role 1 Lecturer in classroom	4.3	4.2
Role 2 Clinical or practical teacher	4.4	4.2
Role 3 On the job role model	3.9	4.0
Role 4 Teaching role model	3.8	4.0
Role 5 Mentor, personal advisor	4.0	4.1
Role 6 Learning facilitator	4.1	4.0
Role 7 Student assessor	4.2	4.0
Role 8 Curriculum evaluator	4.0	4.0
Role 9 Curriculum planner	4.1	4.0
Role 10 Course organizer	4.0	3.8
Role 11 Study guide producer	3.3	3.6
Role 12 Resource material creator	4.0	3.9

Overall mean scores of this study were compared with the overall mean scores from Dundee University,<sup>5</sup> using one sample t-test. Statistically significant differences were noted in role no 1, 4, 5, 6, 7, 8 and 12 ( $p < 0.05$  in all cases). Table 2 compares mean scores of this study

with the mean scores from Dundee University. The role of teacher as information provider in clinical setting was perceived as the most important in both studies, but least important role in present study was resource material producer/study guide producer and in Dundee University was

mentor and resource material producer.

Figure 2 provides an illustration of the comparison of the mean scores for the three colleges of Islamabad and their comparison with Dundee University scores. The objective of this comparison was to see how teachers value each role in the three colleges and how different it is from Dundee University. It is evident from the Figure that the teachers in the three medical colleges of Islamabad rate all the roles as high. Most of the mean scores are above 3.6 and are comparable with the means from Dundee University. The least important role perceived by the teachers in the three colleges of Islamabad is study guide producer (role 11 in the Figure 2).

Data was further analyzed by gender and designation of the faculty. Table 3 provides a distribution of the mean scores by gender. There was only minor difference in the perceptions of male and female faculty

TABLE 4: MEAN SCORES OF PERCEPTIONS OF FACULTY WITH RESPECT TO SENIORITY

Teachers' role	Professors/ Associate Professor	Assistant Professors/ Senior Registrars
Role 1 Lecturer in classroom	3.9	4.4
Role 2 Clinical or practical teacher	4.3	4.4
Role 3 On the job role model	4.4	3.9
Role 4 Teaching role model	4.0	3.9
Role 5 Mentor, personal advisor	4.4	3.9
Role 6 Learning facilitator	4.2	4.1
Role 7 Student assessor	4.2	4.0
Role 8 Curriculum evaluator	4.2	3.9
Role 9 Curriculum planner	4.2	3.9
Role 10 Course organizer	4.0	3.9
Role 11 Study guide producer	3.7	3.3
Role 12 Resource material creator	4.0	3.9

members and both perceived most important role of medical teacher as information provider in clinical setting and least important role as study guide producer.

Designation of the faculty was taken as an indicator to the teaching experience. Faculty at the ranks of full professor and associate professor were combined as having more experience than assistant professors and senior registrars. As evident from Table 4, there are only minor differences in the perceptions of the two groups about the roles of the teachers.

## DISCUSSION

The medical teacher is not just an instructor or a task master; he/she is a helper and a guide who fits into many different roles; all at the same time.<sup>1</sup> The "twelve roles model" for the teacher presented by Harden provides an understanding of the different dimensions of the functions fulfilled by the teacher.<sup>5</sup> Present study was conducted in the three medical and dental colleges of Islamabad to explore how the faculty of these colleges perceive the 12 roles of the teacher.

Results of the study indicate that majority of medical teachers perceived their most important role as information provider in lecture and clinical setting. This is in accordance

with our traditional curricula where maximum time is allocated for long didactic lectures and students act as mere passive listeners. Teachers' perceptions about their roles indicate that they still prefer teacher-centered learning and consider themselves as main source of information provider. Other roles, especially teacher as resource provider and curriculum planner are given less preference (66% and 73% respectively). Study further indicates that roles with medical expertise are given more preference than with educational expertise in actual practice.

Before discussing roles of a teacher as mentor (75%) and role model (74%), it is important that distinction should be made between both roles. Mentors are older persons in an organization that take younger people under their wings and encourage and support them and guide them in their career. On the other hand, a role model teaches primarily by example and helps to promote professional excellence by observation and comparison. They may have only brief contact with students but often play many roles simultaneously, switching from one role to another during the same encounter.<sup>12</sup> In the present study, faculty rated the two roles as equally important (75% and 64%). Mentorship is an active process that has a dialogue between

the mentor and the mentee, while role-modelling may not such interactive nature. We need to build on the teachers' value of their roles as mentors and plan faculty development program in active mentoring.

Faculty rated study guide producers and resource material provider as the least important role of the teacher, because medical students and teachers in Pakistan are not familiar with the value and uses of study guides. They are more acquainted to textbooks and lecture notes. Perhaps, we can present the concept and value of study guides in workshops for faculty and encourage educational leadership to support the development of study guides, either in printed or online versions.

When results were compared by gender, there was no statistically significant difference in perceptions of the two groups ( $p = NS$ ). Senior faculty members (professors and associate professors) gave more importance to roles with educational expertise, especially teacher as an assessor and curriculum evaluator whereas relatively less experienced teachers (assistant professors and senior registrars) were more focused on traditional roles with medical expertise.

When results of different institutes were compared, almost same roles were perceived with nearly equal importance, predominant role being information provider (see Figure 2).

When compared with the results from Dundee University, the two most significant differences were found in the role of the teacher as information provider (role one) and the teacher as mentor (role five). Differences between the results of present study and Dundee University<sup>5</sup> could be attributed to educational environment, training of faculty and influence of national cultures on management, including material wealth.<sup>13</sup> Further research is needed to explore why Pakistani faculty rates mentorship role so high compared to Dundee University.

The description of the 12 roles is not intended as a guideline on how to teach or to consider as educational strategies available, but overall functions to be filled by a teacher. Latest trends in medical education warrant need to accept, value and recognize new norms of what is expected of a medical teacher. This role model framework is of use in the assessment of the needs for staff to implement a curriculum, in the appointment and promotion of teachers and in the organization of a faculty development programme.<sup>5</sup>

Pakistan has over 130 medical and dental colleges distributed in public and private sectors located in a wide range of educational environment. Faculty perceptions about their roles may vary in different educational environments.

The study was conducted in three private medical colleges in the capital city only, which does not mean it represents the perceptions of all Pakistani medical teachers. It is important that a larger national level study or several small scale regional studies are conducted to understand faculty perceptions in a variety of set ups. A range of qualitative studies may also be needed to better understanding of teachers' roles.

## CONCLUSION

There is no fixed definition of a good teacher. One definition could be that a good teacher is one who plays an effective role of learning facilitator, in training students to set their goals and then providing them direction to achieve their goals.<sup>14</sup> Whatever the definition of a good teacher is followed, it is important that the teachers in a particular set up are familiar with their multiple roles and have adequate training to perform their roles effectively. Teachers may not play their roles effectively if they have poor perceptions of their roles. Harden's 12 roles of a teacher is a guide to measure how teachers perceive their roles. Once perceptions of teachers are understood about their roles, med-

ical institutes can prepare faculty development programs to provide training to all faculty to play their roles effectively.

## ACKNOWLEDGEMENT

We acknowledge the study participants who took time out for this study and shared their views.

## NOTES ON CONTRIBUTORS

All the authors contributed significantly to the research that resulted in the submitted manuscript.

## CONFLICT OF INTEREST

Authors declare no conflict of interest.

## ETHICS APPROVAL

The Ethical approval was obtained from Rawal Institute of Health Sciences (RIHS).

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