

# ATTRIBUTES OF ROLE MODELLING DEMONSTRATED BY CLINICAL TRAINERS

Muhammad Zeeshan Rana<sup>1,2✉</sup>, Usman Mahboob<sup>2</sup>, Rehan Ahmed Khan<sup>3</sup>, Raheela Yasmeen<sup>4</sup>

## ABSTRACT

**OBJECTIVE:** To determine the frequency of attributes of role modelling demonstrated by clinical trainers in teaching hospitals.

**METHODS:** A pre-validated role model apperception tool (RoMAT) was used in this cross-sectional study to collect responses from trainees serving in seven teaching hospitals of Pakistan from January to December 2019. The questionnaire contained items on personal, teaching, and clinical attributes of role models. Responders were asked to recognize and respond to attributes of their identified clinical trainers on four-point Likert scale (strongly disagree to strongly agree). Descriptive statistics was carried out using SPSS 21.

**RESULTS:** Out of the 900 questionnaires distributed; 740 post graduate trainees responded (response rate 82%); 540 (73%) recognized one role model, 185 (25%) identified two role models and the rest 15 (2%) did not identify any clinical trainer as a role model. Common attributes of trainers included: excellent clinical reasoning skills (97%), honesty and integrity (90%), awareness of role model status (86%), professionally competent (80%), communication skills (78%), positive interaction (84%), positive attitude (82%), making learning exciting (81%), understanding learners' needs (73%), demonstrating enthusiasm (86%), easy to work with (85%), leadership qualities (72%). Less common attributes included empathy (38%), patience (36%) and rapport with students (33%).

**CONCLUSION:** Trainers in teaching hospitals has to improve their less common characteristics which include empathy, patience and rapport with students.

**KEYWORDS:** Medical Education (MeSH); Clinical trainer (Non-MeSH); Role model (Non-MeSH); Role modelling apperception tool (RoMAT) (Non-MeSH)

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- 1: Department of Pathology, PAC Hospital Kamra, Kamra, Pakistan
- 2: Institute of Health Professions Education & Research, Khyber Medical University, Peshawar, Pakistan
- 3: Professor of Surgery and Dean Medical Education, Riphah International University, Islamabad, Pakistan
- 4: Department of Medical Education, Riphah International University, Islamabad, Pakistan

Cell #: +92-333-5301589

Email✉: [rana.zeeshan7@gmail.com](mailto:rana.zeeshan7@gmail.com)

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A major challenge for clinical trainers is to become good role models who deliver high standards of professionalism. It is found that more than 50 % faculty members are perceived as negative role models.<sup>9</sup> Few studies have been performed on role modelling of clinical trainers in the western countries. However, how frequently do the clinical trainers demonstrate the attributes of role modelling in Pakistan, is still not known. Hence, this study was planned to identify how frequently are the attributes of role modelling demonstrated by clinical trainers in teaching hospitals?

## INTRODUCTION

Junior doctors learn from the seniors whom they respect and trust. Such individuals are called role models who are admired for their ways of being and acting as professionals.<sup>1</sup> Role modelling is a dynamic process in which as resident consciously and subconsciously decides to implement in his personal style what he observes and judges.<sup>2</sup> Role modelling is powerful teaching method that exists in all phases of medical training and influences behavior, shapes career choices and identity.<sup>3,4</sup> Moreover, role modelling is the most effective approach to develop professionalism among trainees.<sup>1,4</sup>

Trainees, trainers and medical educators' awareness of the attributes

of role modelling is necessary to differentiate between positive and negative role modelling.<sup>4</sup> The attributes of role models include clinical competence (hands-on), teaching skills (head) and personal qualities (heart).<sup>5</sup> The clinical competence includes clinical reasoning, decision making, knowledge, skills and communication with patients and students.<sup>6</sup> Teaching skills include effective communication, collaboration, enabling feedback, student centered approach, and providing opportunities for reflection by students.<sup>7</sup> The personal qualities include a passion for teaching and profession, compassion, integrity and honesty. To become a positive role model, a clinical trainer has to integrate all 3Hs (hands-on, head and heart) everywhere and at all times in his behaviour.<sup>8</sup>

## METHODS

A descriptive cross-sectional survey of post graduate trainees training in seven different teaching hospitals of Pakistan was done over twelve months (January to December 2019). Trainees were included regardless of their year of training and specialty to have overall evaluation of role modelling. Doctors other than trainees were excluded who were not undergoing formal training. Clinical trainers who were willing to get feedback on their role modelling skills were included. In addition, an approval was obtained from these clinical trainers to approach their trainees. All participants gave informed consent. Ethical approval was obtained from the Ethics Review Committee of Riphah ERC/18/0355 dated 11 Feb 2019.

A validated Role Modelling apperception tool (RoMAT) was used to collect data in this study after permission from its developers.<sup>8</sup> This questionnaire consists of 17 items: six-items on clinical skills (hands on), six-items on teaching qualities (head), and five-items on personal qualities of role models (head). All these items were kept mandatory and scored on four-point Likert scale (strongly disagree, disagree, agree and strongly agree). Pilot testing (n=20) was done to assess comprehension, technical compatibility and accessibility.

Convenience sampling technique depending on ease of access, was used for selection of trainees. Total of 900 trainees were included belonging to eight specialties of seven teaching hospitals of four cities of Pakistan. These trainees assessed 30 clinical trainers who gave approval for approaching their residents. Consent was obtained from all trainees and their trainers through email. Two reminders were given through email to improve response rate.

Descriptive statistics (frequencies and percentages) were calculated and stratified by years of training, surgical, medical and their allied specialties by using SPSS version 21.

## RESULTS

Amongst 900 trainees contacted, 740 post graduate trainees responded (response rate 82%). Majority of the participants were females and junior trainees (Table I). All the trainees were actively involved in their training at teaching hospitals under the supervision of clinical trainers for one year or more. First and second year participants (58%) who were less likely to be familiar with characteristics of role model mentioned in RoMAT, were given two weeks for observing their role models and filling of the questionnaires. Majority of the trainers were male and belonged to medical and allied specialties (Table II).

The trainees gave positive responses for most of the items of RoMAT questionnaire regarding their trainers (Table III). The most common attributes included excellent clinical reasoning skills (97%), honesty and integrity

TABLE I: DEMOGRAPHIC DETAILS OF STUDY PARTICIPANTS (N=740)

Characteristics		Frequency (n=740)	Percentage
Gender	Male	340	46
	Female	400	54
Age (years)	25 - 30	290	39
	31 - 35	418	56
	36 - 40	32	5
Year of Training	1 <sup>st</sup> year	236	32
	2 <sup>nd</sup> year	193	26
	3 <sup>rd</sup> year	181	24
	4 <sup>th</sup> year	129	18
Speciality of Trainees	<b>Surgical and Allied</b>	<b>335</b>	<b>48</b>
	Surgery	192	26
	Gynecology and Obstetrics	84	11
	Otorhinolaryngology	44	6
	Ophthalmology	35	5
	<b>Medical and Allied</b>	<b>385</b>	<b>52</b>
	Medicine	237	32
	Radiology	59	8
	Pathology	89	12
Workplace City	Karachi	446	60
	Rawalpindi	235	32
	Peshawar	34	5
	Quetta	25	3

(90%), awareness of role model status (86%). Less common attributes included conveying empathy for patients (38%), having patience (36%) and establishing rapport with students (33%).

## DISCUSSION

This study explored frequency of the attributes of role modelling demonstrated by clinical trainers as perceived by trainees using a validated role model apperception tool. This study suggests that the most of students have positive role models during their training. Awareness of role modelling behavior can enhance teachers' role

modelling and improve students' learning. RoMAT plays an important role to provide feedback to trainers and helps students to develop better insight into role modelling behavior. The tool also guides the trainees to the attributes they should be looking for in their role models. This tool can be used for training of trainers for role modelling. Further, this tool can also be used to differentiate between positive and negative role modelling.<sup>8</sup>

In this study, the most common personal characteristics of role models as perceived by trainees included self-confidence, honesty, and integrity, having leadership qualities. These

qualities influence students' functioning and behavior. Previous studies<sup>5,10-13</sup> also highlighted these characteristics. Other important personal skills include demonstrating humility,<sup>11</sup> humanism, and being generous with time.<sup>12</sup>

Among the clinical skills of role models, the most common attributes identified by this study were excellent clinical reasoning skills, professionally competent, demonstrating enthusiasm for his or her work, communication with patients and their relatives, having positive interaction with other health care providers. These skills are related to the effectiveness of role models which includes providing patients and students what they need.<sup>8</sup> these were also emphasized by other studies.<sup>13,14</sup> However, other researchers added demonstration of clinical thought process,<sup>11</sup> concerned with prevention of illness and promotion of health.<sup>15</sup>

Common teaching attributes identified by trainees in this study included awareness of role model status, making learning exciting and stimulating, having positive attitude towards learners, understanding learners' needs and committed to growth of learners. The teaching skills involve making the implicit explicit.<sup>3</sup> In addition, the other studies included teaching all levels of students,<sup>13</sup> and promoting interest in research.<sup>6</sup>

Having patience (65%) and conveying empathy for patients (62%) were less common attributes of role models in our study whereas a previous study highlighted role models patience as important attribute (92%).<sup>12</sup> Another study mentioned conveying empathy for patients as important characteristic of role models.<sup>13</sup> This finding may be due to difference in our working environment with heavy patient loads and long working hours promoting impatience and less empathy among clinicians, or another reason can be the lack of observation of the right role models by the clinical trainers themselves. Moreover, lack of training in empathy and patience is another reason that it was not observed by the trainees in their clinical trainers.

The less common teaching attributes of role models in our study were the ability

TABLE II: DEMOGRAPHIC DETAILS OF THE TRAINERS

Characteristics		Frequency (n=30)	Percentage
Gender	Male	19	63
	Female	11	27
Age (years)	30 - 39	8	26
	40 - 49	22	74
Speciality of Trainees	<b>Surgical and Allied</b>	<b>14</b>	<b>47</b>
	Surgery	8	27
	Gynecology and Obstetrics	3	10
	Otorhinolaryngology	2	7
	Ophthalmology	1	3
	<b>Medical and Allied</b>	<b>16</b>	<b>53</b>
	Medicine	9	30
	Radiology	3	6
	Pathology	4	13
Workplace City	Karachi	14	46
	Rawalpindi	10	34
	Peshawar	4	13
	Quetta	2	7

to develop rapport with learners (33%). Previous studies identified that the general physical appearance, interests outside medicine, having management skills, conducting research, professional reputation and providing didactic teaching were less common attributes.<sup>2,12,13</sup> Other less important attributes included formal training in teaching, sharing interest outside medicine, ability to perform procedures and being the author of several publications were less common attributes.<sup>6</sup> The reason for this difference is that ROMAT was developed based on common attributes of role models mentioned in previous studies whereas less common attributes were excluded.<sup>8</sup>

One of the limitations of our study is that majority of answers by trainees lie in top two categories of Likert 4-point scale i.e., agree and strongly agree. Literature reports that majority of the participants give socially agreeable

answers to sensitive questions regardless of their opinion.<sup>16</sup> Moreover, in the agree / disagree format of questions, most of the respondents are likely to give agree option. This is known as acquiesce bias and its origin is uncertain.<sup>17</sup>

## CONCLUSION

The most common attributes of role models demonstrated by clinical trainers in teaching hospitals include having excellent clinical reasoning skills, honesty and integrity, awareness of role model status, professionally competent in different clinical situations and coping with adversity, communicating well with patients and relatives, having positive interaction with other health workers, having positive attitude towards learners, making learning exciting and stimulating, understanding learners' needs and committed to growth of learners, demonstrating enthusiasm for his or her work, being nice and easy to

TABLE III: SUMMARY OF POSITIVE AND NEGATIVE RESPONSES OF TRAINEES TO ROMAT ITEMS

Item No.	Attributes of role model (My clinical trainer)	Categories of attributes of role models	Strongly agree and agree (Positive response)		Strongly Disagree and Disagree (Negative response)	
			N	%	N	%
1	Has excellent clinical reasoning skills	Clinical	718	97	22	3
2	Conveys empathy for patients	Clinical	459	62	281	38
3	Communicates well with patients and relatives	Clinical	577	78	163	22
4	Understands learners' needs and committed to growth of learners	Teaching	540	73	200	27
5	Establishes rapport with learners	Teaching	496	64	244	33
6	Has positive attitude towards learners	Teaching	607	82	133	18
7	Demonstrates enthusiasm for his or her work	Clinical	636	86	104	14
8	has patience	Personal	474	64	266	36
9	Has positive interaction with other health workers	Clinical	622	84	118	16
10	Makes learning exciting and stimulating	Teaching	599	81	141	19
11	Has self-confidence	Personal	666	90	74	10
12	Is available for learners	Teaching	562	76	178	24
13	Is honest and has integrity	Personal	666	90	74	10
14	Has leadership qualities	Personal	533	72	207	18
15	Is aware of his / her role model status	Teaching	636	86	104	14
16	Is nice and easy to work with	Teaching	629	86	104	14
17	Is professionally competent in difficult clinical situations and can cope with adversity	Clinical	592	80	148	20
Average			616	83	124	17

work with, having leadership qualities, being aware of his / her role model status. The less common attributes included conveying empathy for patients, having patience and establishing rapport with students.

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## AUTHORS' CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

**MZR:** Conception & study design, acquisition, analysis and interpretation of data, drafting the manuscript, approval of the final version to be published

**UM:** Conception & study design, analysis and interpretation of data, critical review, approval of the final version to be published

**RAK:** Analysis and interpretation of data, drafting the manuscript, approval of the final version to be published

**RY:** Study design, critical review, approval of the final version to be published

*Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.*

## CONFLICT OF INTEREST

Authors declared no conflict of interest

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## DATA SHARING STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request



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