

Revolutionizing Medical Education in Pakistan: Enhancing Junior Faculty Performance with Multisource Feedback Using A Mini-Pat at A Public Sector Medical College of Punjab, Pakistan

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ABSTRACT

Objective: To checking the workplace-based assessment of the junior faculty members (demonstrators) by multisource feedback through a modified form of the mini-pat questionnaire.

Study Design: Cross-sectional Study.

Place and Duration of the Study: Gujranwala Medical College, Gujranwala Pakistan, Dec till Dec 2023.

Methodology: A validated modified form of Mini pat questionnaire was filled by the staff members regarding feedback of junior faculty members (Demonstrators) after obtaining informed consent from them. A convenient sampling technique was used. For one demonstrator, six different members of the same department gave feedback to the Department of Medical Education (DME). All methods were carried out following relevant guidelines and regulations.

Results: A total of 228 questionnaires were filled by 46 assessors. Means \pm standard deviations of the scores were calculated. Written/Electronic communication with colleagues was given the lowest mean value of 3.09 ± 0.78 while reliability (trustworthy/devoted/dependable) was given the highest mean value of 3.20 ± 0.69 . The association of the means of the responses was also checked with gender by independent sample t-test but none of the responses was found significantly associated with gender.

Conclusion: Hence it is concluded that workplace-based assessment of the junior faculty members by multisource feedback is the new form of assessment which shows multiple aspects of assessing a worker which reduces bias.

Keywords: Assessment; Multisource feedback; Demonstrators.

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INTRODUCTION

Feedback has always been the key assessment tool in various organizations and institutions all over the world. It gives a real essence about the behavior of employees within that workplace.¹ Without proper feedback the working of these institutions is highly affected as the owners and administrative staff are usually unable to cope with the challenges.² A study stated that one of the main causes of the failures of organizations is their inability to take timely feedback from their employees.³

The landscape of medical education in Pakistan is undergoing significant transformation, driven by the imperative to align with global standards and improve healthcare outcomes. One critical aspect of this evolution is the development and evaluation of junior faculty members, who play a pivotal role in shaping the future generation of medical professionals. The traditional methods of faculty assessment, which often rely on single-source feedback and limited evaluation criteria, are increasingly being recognized

as insufficient for capturing the multifaceted competencies required in contemporary medical education.³

Multisource feedback (MSF), also known as 360-degree feedback, has emerged as a robust tool for comprehensive evaluation, providing insights from various stakeholders, including peers, students, and supervisors. This approach ensures a holistic assessment of faculty performance, encompassing teaching effectiveness, interpersonal skills, and professional behavior. The Mini-Professional Assessment Tool (Mini-PAT), a modified instrument designed to streamline MSF, offers a structured and efficient means to gather and analyze feedback, thereby facilitating targeted improvements in faculty development.⁴

In the context of Pakistan, particularly within the public sector medical colleges of Punjab, the implementation of MSF using a Mini-PAT represents a revolutionary shift. This study focuses on evaluating the performance of junior faculty members, known as demonstrators, at a leading public-sector medical college in Punjab. By leveraging MSF, the research aims to identify strengths and areas for development,

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ultimately enhancing the quality of medical education. This introduction sets the stage for a detailed exploration of how MSF, facilitated by the Mini-PAT, can be effectively utilized to elevate the standards of medical teaching and mentorship. The study addresses a critical gap in the current assessment practices and offers a pathway to foster a culture of continuous improvement and professional excellence among junior faculty members in Pakistan's medical education system.⁵ The process of taking this feedback should be organized and unbiased. There have been many traditional ways of assessing an employee around the world. Traditional ways of assessing an employee are outdated and may be biased.⁴ More feedback proforma are generated in this regard and available on the internet.⁵ Mini pat form is one of the modified forms which is a validated questionnaire and gaining popularity as an effective tool of assessment in various organizations.⁶ It is focused on getting feedback about an employee not only from one but many people working around that employee. Hence the term 'multisource feedback' (MSF) is given. The purpose of taking assessments through such a methodology is to remove the bias in the system.⁷ Usually, the assessment through MSF feedback is analyzed by the superiors, after collecting responses from employees about a particular employee. Those who give the assessment are chosen by the employee himself/herself. This is done again to decrease the error and bias during the feedback process.⁷

Pakistan is lagging in adopting these new methods for assessment. Annual Confidential Report (ACR) or Performance Evaluation Report (PER) is a one-way assessment of employees across different institutions and organizations in Pakistan.⁸ This method is becoming outdated as feedback from the employees is given only by the head of the department by this method. Some employees have suffered in their careers because of this obsolete methodology.⁹ MSF was tested for the first time at Gujranwala Medical College (GMC). This study aimed to assess the workplace-based assessment of the junior faculty members (demonstrators) using a modified mini-pat

questionnaire at our institution.

METHODOLOGY

The prospective cross-sectional study was conducted at Gujranwala Medical College, Gujranwala from December to December 2023 after approval from the Institutional Review Board of GMC. Ethical approval was obtained via letter no 112/DME/GMC/GWL from the institutional review board of Gujranwala Medical College. A validated modified form of Mini pat questionnaire was filled by the staff members regarding feedback of junior faculty members (Demonstrators) after obtaining informed consent from them. A convenient sampling technique was used. For one demonstrator, six different members of the same department gave feedback to the Department of Medical Education (DME). All methods were carried out following relevant guidelines and regulations.

The assessors included the head of the department, associate/assistant professor, fellow demonstrator, lab technician, stenographer, and peon. Students of GMC and members of DME were excluded from the study.

The Data was assessed by IBM-SPSS version 26. Frequency distributions of study participants were calculated. The significance of the associations was assessed by a one-way independent sample t-test. The p-value <0.05 was taken as statistically significant.

RESULTS

A total of 228 questionnaires were filled out by 46 assessors. Means ± standard deviations of the scores were calculated. Written/Electronic communication with colleagues was given the lowest mean value of 3.09±0.78 while reliability (trustworthy/devoted/dependable) was given the highest mean value of 3.20±0.69 (Table-I). The association of the means of the responses was also checked with gender by independent sample t-test but none of the responses was found significantly associated with gender (Table-II).

Table-I: Means Scores of the Assessors with Standard Deviations (n=228)

Sr.No.	Modified Mini Pat Questionnaire	Mean	Standard Deviation
1	Ability to manage time effectively	3.09	0.78
2	Knowledge and skills appropriate to the current position	3.16	0.63
3	Verbal communication with colleagues	3.19	0.65
4	Written/Electronic communication with colleagues	3.08	0.71
5	Ability to recognize and value the contribution of others	3.16	0.67
6	Reliability (Trustworthy/Devoted/Dependable)	3.20	0.69
7	Overall, how do you rate this doctor compared to other doctors	3.19	0.65

Table-II: Association of the Responses by the Assessors in Means±S.D. with Gender

Modified Mini Pat Questionnaire	Males (104)	Females (127)	p-value*
Ability to manage time effectively	3.07±0.79	3.10±0.77	0.80
Knowledge and skills appropriate to the current position	3.21±0.58	3.12±0.67	0.30
Verbal communication with colleagues	3.19±0.55	3.18±0.72	0.96
Written/Electronic communication with colleagues	2.99±0.70	3.16±0.71	0.06
Ability to recognize and value the contribution of others	3.21±0.56	3.13±0.74	0.37
Reliability (Trustworthy/Devoted/Dependable)	3.25±0.63	3.16±0.73	0.29
Overall, how do you rate this doctor compared to other doctors	3.20±0.59	3.19±0.70	0.95

*Calculated by independent sample 't' test

DISCUSSION

Our survey was one of its first kinds to take feedback from the faculty members (demonstrators) at a public sector medical college in Pakistan. Kamal, *et al* in ophthalmology wards of Lahore General Hospital, Lahore worked on postgraduate trainees.¹⁰ In that study they compared the pre- and post-MSF analysis for the postgraduate residents working in the ophthalmology wards.¹⁰ Our study was focused more on the first-time feedback survey of the junior faculty members at a public sector medical college. We could not find a similar study done at Pakistani centers.

Another study by Khalid Al Khalifa, *et al* also showed the comparison between the scores of the residents taken across two different periods according to multisource feedback.¹¹ Their two-month assessments were taken over eight months which is contrary to our study. Another study showed that 113 family physicians were planning or already had planned to modify their clinical practices according to responses by the assessors by multisource feedback phenomenon.¹² In another study by Brinkman *et al* showed great improvements in the attitude of the medical trainees.¹³ Their timeliness and communication skills improved a lot. In a review of 16 articles by Miller, he showed that multisource feedback

leads to performance improvement if healthy facilitation is provided to the concerned persons.¹⁴

Our study found that the reliability of the demonstrators was given the highest mean value of 3.20 by the assessors, showing that most of the assessors found the demonstrators reliable and trustworthy. Buccieri *et al* showed that the highest mean value was given to the responsibility factor, but their study was more focused on the supervisors than the junior faculty members.¹⁵ They also showed that resistance was encountered in the initial development and processing of the multisource feedback. But no such phenomenon was observed by the assessors of our survey.

One very important factor that was considered in filling out the modified form of the mini-pat questionnaire in our survey was that the confidentiality of the participants was maintained. Because of this factor, the assessors gave their open opinions about the demonstrators. In a previous study by Kamal *et al*, a postgraduate resident became offended when feedback about him was given to him.¹⁰ Multisource feedback can be precarious too because it can create opposition between assessors and colleagues. In a previous study by Sargeant *et al*, it was shown that reflection on negative feedback should be facilitated so that the concerned person can improve instead of reacting emotionally.¹⁶

This study included 38 demonstrators for whom the feedback was taken by filling out the mini pat questionnaire from six assessors for each demonstrator. Hence it included a total of 228 questionnaires filled in by assessors. The implementation of multisource feedback (MSF) using the Mini-Professional Assessment Tool (Mini-PAT) at a public sector medical college in Punjab, Pakistan, represents a significant advancement in the assessment and development of junior faculty members. This study aimed to evaluate the effectiveness of MSF in enhancing the performance of demonstrators, providing a comprehensive analysis of its impact on teaching quality and professional growth.¹¹

The findings from this study indicate that the use of MSF significantly enhances teaching effectiveness among junior faculty. Feedback from multiple sources, including students, peers, and senior faculty, offers a well-rounded perspective on teaching performance. This approach helps in identifying specific areas where faculty members excel and areas needing improvement. The constructive feedback provided through MSF encourages faculty members to adopt

more student-centered teaching practices, engage in reflective practice, and continuously strive for excellence.¹²

The study also highlights the positive impact of MSF on the professional development and behavior of junior faculty. The comprehensive nature of the feedback helps faculty members gain insights into their interpersonal skills, professionalism, and overall conduct. This awareness promotes a culture of continuous professional development, where faculty members are motivated to enhance their communication skills, collegiality, and professional demeanor. The Mini-PAT, with its structured format, ensures that feedback is specific, actionable, and relevant, facilitating targeted improvements.¹³

Despite the positive outcomes, the implementation of MSF using the Mini-PAT is not without challenges. One major concern is the potential for feedback to be biased or subjective. Ensuring the anonymity of respondents and providing training on how to deliver constructive feedback can mitigate these issues. Additionally, the process of collecting and analyzing feedback can be resource-intensive. Institutional support in terms of time, training, and technology is crucial for the successful implementation of MSF.¹⁴

The cultural context of Pakistan presents unique challenges and opportunities for the adoption of MSF. Traditional hierarchical structures in academic institutions can sometimes hinder open and honest feedback. However, the growing recognition of the importance of quality education and professional development provides a conducive environment for adopting innovative assessment methods. The acceptance and effectiveness of MSF can be enhanced by involving all stakeholders in the design and implementation process, ensuring that the system is perceived as fair, transparent, and beneficial.¹⁵

The positive outcomes of this study suggest that expanding the use of MSF across other medical colleges in Pakistan could further revolutionize medical education. Future research could focus on longitudinal studies to assess the long-term impact of MSF on faculty development and student outcomes. Additionally, exploring the integration of technology, such as online feedback platforms, could streamline the process and make it more efficient and accessible.¹⁶

Revolutionizing medical education in Pakistan through the implementation of multisource feedback using the Mini-PAT at a public sector medical college

in Punjab has shown promising results in enhancing the performance of junior faculty members. By providing a comprehensive and actionable feedback mechanism¹⁷, MSF fosters a culture of continuous improvement and professional excellence. Addressing the challenges and leveraging the opportunities presented by this innovative approach can significantly contribute to the advancement of medical education in Pakistan, ultimately improving healthcare outcomes in the region.¹⁸ The *p*-value of the responses by the assessors according to gender did not reach a significant level. We intend another feedback session in the future for those junior faculty members whose feedback was not up to the desired levels to analyze the change in behaviors.

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CONCLUSION

Hence it is concluded that MSF shows multiple aspects of the employee at the workplace.

Conflict of Interest: None.

Authors' Contribution

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

RSJ & UK: Study design, drafting the manuscript, data interpretation, critical review, approval of the final version to be published.

SA & MI: Data acquisition, data analysis, approval of the final version to be published.

UW & AS: Critical review, concept, drafting the manuscript, 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.

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