

## Impact of Learning Portfolio in structuring routine of medical students during COVID-19 lockdown period

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**Objective:** To assess the role of learning portfolio in structuring daily routine of medical students in lockdown period by employing Gibbs model of reflection.

**Methodology:** This cross sectional study was conducted in CMH Kharian Medical College from July to August, 2020. Data were collected from 2nd year MBBS students. Paper version of the Questionnaire was distributed based on Gibbs model of reflection. Students responses were recorded based on Likert scale (agree, disagree and neutral).

**Results:** Out of 100 students, 96 responded. Out of these, 71% students felt motivated by mentor's feedback, 62% were of opinion that reflective writing provided them with a summary that can be used as a rapid revision tool later, 60% felt that learning portfolio helped to structure their working

days better. Learning portfolio helped 58.56% students to track learning progress against defined learning objectives and 55.68% were of opinion that this learning assessment modality can be continued for other sessions. We found that 51.84% students agreed that keeping the learning portfolio updated fostered reflective thinking process.

**Conclusion:** Incorporation of learning portfolios in early years of medical education can work as efficient reflective tools that facilitate the learner to structure daily working routine systematically. With feedback, this learning modality motivates the learner in a better way by identifying their shortcomings at an earlier stage. (Rawal Med J 202;46:434-437).

**Keywords:** Learning portfolio, self-reflection, knowledge gaps.

## INTRODUCTION

Since there is an increased volume of subject matter that needs to be covered in a stipulated time, in addition different background of medical students at Intermediate level poses extra challenge to cope with this burden. Majority of medical students have taken HSSE while very few have been through Cambridge school system, so need is to employ reflective writing for identification of gaps in learning at an early stage of their professional education.

Reflective journals and learning portfolios are used in professional life to nurture the culture of self-evaluation.<sup>1,2</sup> As medicine is a rapidly evolving and is highly demanding life learning profession, we have a culture of 360 degree peer feedback.<sup>3</sup> Self-realization and self-evaluation has a central place in self-regulation and personal grooming.<sup>4</sup> Learning portfolio provide a more reliable and dynamic data about students, not only for teachers

and parents but also give insight to students about their progress.<sup>5-7</sup>

Therefore, getting familiarized with developing a constructive learning portfolio or reflective journal early at an undergraduate level will develop sense of responsibility.<sup>8</sup> The aim of this study was to assess the role of learning portfolio in structuring daily routine of medical students in lockdown period by employing Gibbs model of reflection.

## METHODOLOGY

A questionnaire based cross-sectional study on the principles of self-reflection was devised and given to 2nd year MBBS students. During last 6 weeks of lockdown from end of July till mid of September, students were guided to write weekly reflective journal. The students were divided into 8 batches, each batch comprising of 12-13 students. Both students and mentors went through orientation sessions on how to follow Gibbs model of

reflection. The study was approved by the institution and an informed consent was taken from all participants.

Out of 100 students, 96 students responded. Out of 96, eight students have had exposure of international schooling. Six out of eight students have had Cambridge school exams, one had Canadian high school and one had done International Baccalaureate. Rest of 88 students has passed higher secondary school certificate exam. Each batch was supervised by faculty assigned for the period of 6 weeks and feedback was supposed to be provided weekly.

**Statistical Analysis:** Statistical analysis was performed using SPSS version 20. Result of

students' perception is presented both in numbers and percentages.

## RESULTS

Out of 96 students, only 13.44% followed Gibbs model of reflection, while 44.16% students completed their reflective journal without following any specific model of reflection. Further it helped 60.48% students to structure their week in a better way. Above fifty percent of students were of meaning that this learning assessment modality not only helped them to identify key learnt areas against defined learning objectives, but also equipped them to get awareness of their weaknesses coupled with appropriate and timely response (Table).

**Table. Perception of students.**

Parameters assessed	Agree N= 96	Disagree N=96	Neutral N=96
1. I followed Gibbs model of reflection	13.44%	28.8%	49.92%
2. I just formulated portfolio document without following any specific model	44.16%	27.84%	21,12%
3. It helped me to structure my week in a better way	60.48%	10.56%	20.16%
4. It helped me to identify newly learnt concepts in a week	56.64%	8.64%	29.76%
5. It helped me to track learning progress against defined learning objectives	58.56%	7.68%	24.96%
6. It guides me to identify my shortcomings at early stage	60.48%	7.68%	23.04%
7. I feel myself more ready to identify my weak areas and already started working on it.	56.64%	8.64%	25.92%
8. It provided me with a summary of key events that can be used for rapid revision later on	62.4%	7.68%	21.12%
9. I have been previously engaged in reflective writing and had good experience with it.	39.36%	24.96%	27.84%
10. I feel more motivated with teachers feedback	71.04%	5.76%	14.4%
11. I have not participated in writing up reflective journal	30.72%	35.52%	23.04%
12. I recommend reflective writing to be continued for other sessions	55.68%	8.64%	24.96%
13. It fostered reflective thinking	51.84%	3.84%	36.48%

Approx. 30.72% students did not participate in any form of reflective writing earlier. Contrary to that, 39.36% had previous exposure to reflective writing and above 50% students thought that this assessment modality fostered reflective thinking and recommended it for future sessions.

## DISCUSSION

Learning portfolio is used in postgraduate medical education to keep record of learning, and to assess clinical competency of the trainee doctors based on assessment and feedback.<sup>8</sup> In 2001, GMC introduced portfolio approach as a part of

revalidation process for doctor's licenses.<sup>9</sup> Learning portfolios are thought to be effective in fostering effective learning.<sup>10</sup>

Our study showed that 63% of second year students were of opinion that learning portfolio helped them structure their week and in addition helped them to identify their shortcomings earlier. Timely feedback has a central role in rectifying mistakes and keeping individuals motivated.<sup>11</sup> Similarly, 74% students felt more motivated by teacher's feedback. Mentors role is of prime importance in keeping the students engaged and improve their reflective writing.<sup>12</sup> Tutors were provided literature and an introductory lecture was arranged for students to get them oriented about Gibbs model of reflection and how to construct an effective portfolio and emphasis was given on providing feedback.<sup>13</sup>

Some students (32%) did not participate in writing portfolios, though the focus was on the intermittent feedback so that final document from the mentor doesn't come as a surprise. Mentor's approach to respond to the students might have led to the trend.<sup>14</sup> In addition medical students work mostly to meet the needs of their annual assessment. Since portfolio writing doesn't give them extra credit in their assessment that might have resulted in high number of students not participating in this activity at all. A well-structured portfolio will cater as rapid revision document for students as mentioned by 65% of the students.

At this stage, it's difficult to comment on whether difference in premedical school bonding might have resulted in a different outcome, and students might have followed Gibbs model of reflection more while formulating a portfolio.

Limitations of the study are that it encompasses of only 2<sup>nd</sup> year MBBS students. Medical college closure hampered the data collection and student response to online form is very little. There is need of further comparative studies among government and private medical colleges. Need of the hour is to include reflective writing as a mandatory part of medical curriculum. Teachers continuous feedback can provide a platform to inculcate passion for lifelong learning process in a rapidly evolving field of medicine.

## CONCLUSION

Incorporation of learning portfolios in early years of medical education can work as an efficient reflective tool that facilitates the learner to structure daily working routine systematically. Along with feedback, this modality motivates the learner in a better way by identifying their shortcomings at an earlier stage.

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