

[ORIGINAL ARTICLE]**Impact of Education Technology Workshop on Teaching Learning Skills of Physiotherapy Teachers****Ganvir Suvarna**

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ABSTRACT

Background: Faculty Development Programs are intended to improvise teaching, mentoring and feedback skills of teachers. Unless there is a positive change in these skills, these FDPs may not be taken seriously. Hence, the aim of this study is to assess the impact of these FDPs on overall communication skills.

Methodology: 156 academicians from Maharashtra State who have undergone the Health sciences Education training or attended a minimum 3 days' workshop were included in the study. There were 29 heads of institutes, 49 Assistant Professors, 57 Associate Professors and 31 Professors among the respondents.

Results: 100% opined that there was a change in Teaching Learning Process after attending the workshop. However, with 72% participants developed the ability provide constructive feedback. 93% opined that it is just not sufficient to attend the FDP but self learning and application is also crucial for self development. Cadre wise analysis showed more percentage of Professors with improved TL and assessment strategies as compared to Assistant, Associate professors and head of Institutions (HOI).

Conclusion: With varied response from participants it is difficult to generalize the results about positive impact. However, it opens up the discussion on the need of evaluating such programs more regularly specially long term impact and incorporation of suggestions from participants.

Key words: *Physiotherapy, Teaching Learning Process, evaluation.*

Introduction:

An institution's educational vibrancy is linked to the academic standing and professional growth of its faculty. This can be achieved through a vibrant and dynamic FDP, which has been demonstrated to improve faculty proficiency in all five of the targeted areas-teaching, assessment, curriculum support, organizational leadership, and mentoring^[1]. The term "faculty development" describes a variety of initiatives aimed at assisting academicians in enhancing their professional abilities, which are essential for conducting their administration, research, and teaching duties in medical education^[2]. The focus and scope of faculty development initiatives have changed during the last fifty years^[3].

The majority of FDP assessments focus only on the program's immediate outcomes, such as participant satisfaction, short-term knowledge gain, application of newly learned skills, and effects on student learning^[4]. Evaluating changes resulting from faculty development initiatives over time is crucial for identifying lasting outcomes, understanding which interventions might correlate with more sustained changes and acknowledging faculty development throughout their careers^[5].

Various tools have been used for measuring the impact of FDP. Pre Post test^[6], organizational development for faculty development questionnaire^[7] quantitative (cohort study – quasi-experimental), and concurrent explanatory qualitative component (focused group discussion

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with teaching faculty members) reported using the COREQ guidelines^[8] are some of them. In the absence of a standard specific tool for quantitative analysis, a self-structured questionnaire was used in this study to assess the impact of FDP on skills of teacher.

Methodology:

This cross-sectional study was conducted between January 2023 to December 2023. The target population was academicians from Maharashtra State who have undergone the Health sciences Education training or attended a min 3 days workshop.

For preparing a questionnaire about the impact, experts with minimum experience of 15 to 20 years and training under one of the FAIMER regional centers were contacted to be a part of the study. Out of 10 experts, 6 agreed to participate in the study. A focus group discussion of these 6 experts was held to decide the content of the questionnaire to be prepared for obtaining the information from participants. It was held thrice through the virtual platform. First meeting was held to brief up about the study and preparation of first version of questionnaire. Second meeting was held after the review of this first version of questionnaire by these experts only. It was then pilot tested on a sample of 10 participants from 6 different regions of the state who were in the category of Associate Professors. Apart from responses to the questions, they were also asked to comment on the overall structure and contents of

questionnaire. Based on their responses, a second draft was prepared. It was then discussed with the experts in third meeting and a final draft of questionnaire was prepared. This was named as SD-FDP questionnaire.

Academicians were approached through institute head. Brief information about the research study was given telephonically to the head and was requested to permit the faculty to participate in the study. Responses were obtained via a google form derived from SD_FDP questionnaire which consisted of 12 closed ended and 4 open ended questions.

Results:

156 academicians responded to the questionnaire. There were 29 heads of institutes, 49 Assistant Professors, 57 Associate Professors and 31 Professors among the respondents. All teachers had undergone basic workshop for Health professions educations. However the number of years before the this study the program was attended was variable. It ranged from 3 years to 19 years back when the participants had attended the basic workshop.

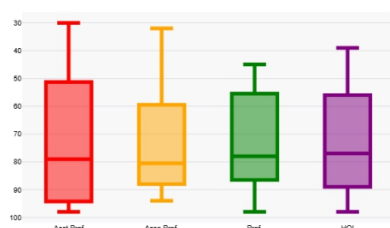
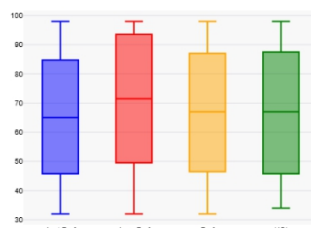
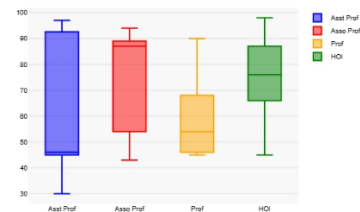
Besides the basic workshop, few faculty had continued their passion for updating teaching learning methods. 24 had attended advance workshop on Health professionals education and 14 were regional FAIMER Fellows. All opined that there was a self improvement after undergoing the FDP. However percentage varied from 10 to 90 percent.

Table no. 1: Analysis of responses according to the cadre of participants (values in expressed in %)

	Total	Asst Prof	Associate Professor	Professor	Head of Institution (HOI)
Changes in TL methods	100	100	100	100	100
% students benefitted	82	59	79	93	72
Changes in assessment methods	81	53	74	82	71
Better Feedback quality	89	63	94	72	79
Developed a habit of self learning	89	73	84	92	81
Learnt to introspect own TL methods	81	79	89	81	91
Willing ness to learn more	83	78	89	82	79
Improved networking within the institute	89	73	84	92	89
Improved networking with other institute faculties	81	79	85	96	85
Sharing of ideas	87	79	89	81	62
Better communication with students	89	73	84	92	70

Table no. 2: Analysis of responses according to the courses attended by faculty (values in expressed in %)

	Basic workshop	Advance Workshop	Regional FAIMER Fellowship
Changes in TL methods	100	100	100
% students benefitted	92	91	94
Changes in assessment methods	93	95	91
Better Feedback quality	92	95	91
Developed a habit of self learning	92	97	90
Learnt to introspect own TL methods	94	93	94
Willing ness to learn more	96	90	82
Improved networking within the institute	92	97	91
Improved networking with other institute faculties	91	97	91
Sharing of ideas	90	95	94
Better communication with students	89	97	91

Graph no.1 : Changes in TL methods**Graph no.2 :** Changes in assessment methods**Graph no.3 :** % of students benefitted

Variations in the percentage change is observed in the TL methods, assessment methods and % students benefitted by the teaching strategy. There is almost equal change in TL methods among all cadres as it is one of the primary educational activity which is undertaken by each teacher on a day to day basis. Comparatively Assistant Professors show larger variations in percentages. This may be due to some who are novice are not willing to adopt to new TL methods and some are enthusiastic enough to try out new methods.

Changes in assessment methods was observed equally in all cadres. Open ended questions revealed opportunity of networking with institute teachers during the FDPs leading to introspection, motivation from faculty to bring about a change in the students at institute level, inspiration to take lead for others, which had a positive impact on the mindset leading to creativity and urge for controlled evidence based implementation of newer teaching learning and assessment methods. Another open ended question about challenges for implementation of TL strategies in their institute included rigid attitude of head of institution for a change in TL methods, unavailability

of required infrastructure in few institutes, motivating other teachers in the department. At personal level, few teachers opined that lack of time and motivation from senior teachers in institute acted as a barrier for self development. 70 percent teachers suggested that short refresher courses attended at periodic intervals will further enhance the skills of a teacher. Also 93 percent opined that it is just not sufficient to attend the FDP but self-learning and application is also crucial for self development.

Discussion:

FDP is a contemplative educational platform that is inclusive of intended self-analysis, identification of a person's requirements, the work requirements, the recognition of spaces, and the decision about actions^[9]. Continued professional development is must for a successful and satisfying career in academics,^[10] The impact of FDP is difficult to be measured in standard outcome measures. satisfaction surveys, validated competence measures, CV review, and attendance and retention records have been used in previous studies^[11]. Also Self-perception of teachers is one of the ways which can provide some valuable information about the impact.^[8,11]

Teaching Learning methods updation is the primary change expected to be brought about by teachers as adult learners in health care profession has specific learning needs. Also keeping pace with the technology and methods employed by leading health institutes, is a challenge as students are aware about these differences across institutes^[12]. Providing a non-threatening environment to students is a primary responsibility of teachers as learning environment has an impact on degree of learning^[13,14]. Appropriate TL methods plays an important role in ensuring this.

Education is defined as a medium to bring about a change in behavior of students^[15]. Ability of a teacher to benefit the students determines the academic success of a teacher. In this study teachers have opined that significant number of students were benefitted by their teaching. Emphasis on more student centered approach of teaching and learning may be the underlying reason for this^[4].

Key concept learnt by teachers Assessment drives Learning, motivated teachers to adopt to more focused, impartial methods of assessment, primarily a part of formative assessment. Thus it ensured that students are assessed on the requisite skills and due feedback was given to them^[16]. Life long learner is an attribute expected of Indian Medical Graduate. But is also true for every individual and teachers are no exception. Willing ness to learn more was answered more positively by higher rank teachers as compared to assistant professors.

Long term follow up of FDP has revealed that the apparent sustained impact of the JHFD/TS on its participants, when compared with a group of nonparticipants, suggested that the longitudinal model for faculty development is effective^[17].

A Study has shown that FDP brought about an improvement in communication skills in all aspects including doctor-patient, peers and students^[8,16]. Ability to give clear instructions to students is one of the key concepts of communication with them. Hence it is important for teachers to learn this skill and the present study suggests that there is a significant improvement in communication skills among participants. Better communication also helps to tackle mental health challenges much more prevalent in the younger generation^[18]. Better networking opportunities through these FDP have been suggested by participants and this may help be better equipped with teaching learning tools or even refine them with peer learning. This opens up the

mentoring opportunities which is so crucial for improving the quality of medical education and may be a long term entity^[7,12,19].

According to Newman, investment in a yearlong fellowship in medical education produces positive change in participants' behaviors and improves institutional practice. However, in the absence of uniform tool of measurement of impact of FDP, it is suggested to develop a coding system to aid comparison across research studies^[20].

The study population was limited to Maharashtra state only wherein it is compulsory for teachers to undergo training program by the state university. Hence more positive results might have been observed. The study is being extended further to academicians in other states of India to investigate the status of training program and assess its impact.

Conclusion: The positive impact of the training programs on teachers' skills due to training programs is encouraging. This justifies the efforts taken by the university to upgrade the quality of teachers. However, a robust standardized, objective tool to assess this impact of such program needs to be developed so that the impact can be measured across India.

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