

A Cohort Retrospective Study on the Necessity of a Faculty Development Program for Pharmacy Colleges in Khammam

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ABSTRACT

The important asset of any educational institution, more so of those imparting professional knowledge and skill is its faculty members (Bligh, 2005). Pharmacy is one such professional course witnessing constant research and developments. Therefore, updating of knowledge is of paramount importance for faculty members to keep in pace with these fast developments (Cline 2003). The most effective way of training the faculty is by what is called as faculty development program (FDP). A cohort retrospective study with 2000 students and 88 faculty members from 9 colleges were evaluated on various aspects with the help of a score scale of 0-3. Pearsons coefficient of correlation (R) was applied to the data. Results indicate a significant correlation exists and between student score vs. institutional score for FDP (R=0.8237) and faculty performances vs. institutional score for FDP (R=0.9385) indicating that students and faculty from institutions having an FDP committee and conducting regular FDPs performed

well, were more confident and competing well in their carriers. The need for FDP has already been felt in developed countries and necessary steps were taken to establish institutional FDP committees improve educational skills. Studies are very limited for the Indian scenario except an occasional paper (S. S. Agarwal, 2010). Therefore, the present study greatly substantiates other studies concluding that FDPs greatly enhanced teaching performance by instructors and improved learning outcomes for students, high satisfaction and change in the attitude of faculty towards teaching and development of educational skills and their efficient tackling of student diversity with varying cultural and academic background. This study concludes and recommends that educational bodies controlling pharmacy education in India should make FDP committee mandatory in every pharmacy college for better development of the profession.

KEYWORDS: Pharmacy; Education; Faculty development; Cohort.

Introduction

Until 1990s, a person with content knowledge and practical skills was considered competent to serve the needs of the students and therefore recruited (Gruppen et al., 2003). One of the studies indicate that with the availability of advancements in education, students feel utmost necessity of educational skills and demand the same else the faculty members are criticized for their shortcomings in their teaching performance (Kabat et al., 1989). Even though the above studies hold good to advanced countries, the same is true for Indian scenario. Therefore a constant pressure on faculty to improve their educational skills, simultaneously to being more creative, successful investigators and productive pharmacists is felt and faculty recruitment and retention in colleges and schools of pharmacy have received significant attention in the last decade (Gappa et al., 2008). One of the studies related these pressures to be derived from contemporary curriculum development, competition in health care institutions and from limited resources for research (Lancaster et al., 2014). Other studies emphasized the need to attain new knowledge and diverse skills for faculty including micro group teaching, development and

evaluation of new curricula, integrating technology into teaching, mastering new computer based educational programmes, leadership and management proficiency (MacKinnon, 2003; Kabat et al., 1989). Therefore it forms the responsibility on part of the institutions to provide some sort of FDP in order to deal effectively with the above challenges. This point is being reiterated in one of the studies (Steinert, 2011). The need has already been felt and sporadic efforts made in pharmacy field way back in 1970s itself. This was done through the establishment of QIP by AICTE on behalf of the government of India (MacKinnon, 2003).

Coming to the scenario of Khammam, the place of interest in the current study, there are 9 private pharmacy colleges affiliated to 2 different universities. However in terms of competencies, only 3 of these stand in a better position as evidenced by the number of admissions studied during the past 9 years.

Materials and Methods

A cohort retrospective study was conducted. In this study, 2000 students from all the 9 colleges were assigned into 2 groups – group 1 and 2 representing

students from colleges following regular FDPs and otherwise respectively. These groups were given a set of objective type questions, which addressed wide range of aspects like faculty competency, infrastructure, travelling distance, transportation facilities and placement of students into successful carriers. These were to be answered independently with the help of a score scale of 0-3.0 represents unsatisfactory, 3 the maximum score of satisfaction.

Results

Based on the above scorings, each college was given an average score which we called the institutional score. This can be represented in the Table 1. Institutions representing group1 were better at the institutional score than others.

TABLE 1
Overall study data.

Institution	No of students admitted in past 9y	Institutional score				
		Faculty	Infra-structure, library and other facilities	Travelling distance and transportation facilities	Student placement	Average score
A	637	3.000	3.000	3.000	3.000	1.333
B	660	3.000	3.000	2.000	3.000	1.222
C	589	3.000	3.000	1.000	2.000	1.000
D	498	1.000	2.000	2.000	1.000	0.666
E	396	1.000	2.000	1.000	1.000	0.555
F	489	2.000	1.000	1.000	1.000	0.555
G	366	1.000	1.000	1.000	1.000	0.444
H	370	1.000	1.000	1.000	1.000	0.444
I	338	1.000	1.000	1.000	1.000	0.444

The results were collected and evaluated. Among the various reasons listed for their institutional preference, the faculty competencies were found to be ranked first (63%). Others include infrastructure and lab facilities (38%), travelling distance (8%), others (2%). This clearly reiterates the importance of holding and retaining competent faculty.

For assessment of the efficacy of FDP, numerous studies relied upon different measures of performance like questionnaires, videotaping, reports by faculty and student reporting method (Cline RR. 2003; Steinert Y. 2011). The present study assessed the effectiveness from 2 points i.e., student questionnaire and faculty reporting. Institutions were given an institutional score for FDP ranging from 1 to 3 based on whether regular FDPs were conducted by that institute or not.

Student questionnaire: 2000 students were divided into group1 (n = 1068) and group 2 (n = 932) based on whether they come from institutions conducting FDPs or not. They were given a set of objective type questions covering various aspects of students' performance like academic questions, performance in quizzes, performance at work place, clarity of lecture material and academic awards. Based on the result, students were given an average score of performance.

Faculty reporting: for this purpose 88 faculty from the 9 colleges were grouped into group1 (n=48) and group2

(n=40) based on whether they received training through regular FDPs or otherwise. Evaluation of various aspects from the faculty's perspective is done including teaching skills, use of technology, student feedback and confidence of lecturing. Based on the result the faculty was given an average faculty performance score. The results are summarized as in Table 2. It was observed that majority of the students from group 1 (68%) are from institutions A, B and C. These are the institutions following regular FDPs.

TABLE 2
Institutional data.

Institution	Average Student performance score	Average faculty performance score	Institutional score for FDP
A	3.000s	3.000	3.000
B	3.000	2.988	3.000
C	2.000	2.877	2.000
D	1.000	1.000	1.000
E	1.000	1.000	1.000
F	1.000	1.000	1.000
G	1.000	1.000	1.000
H	1.000	1.000	1.000
I	1.000	1.000	1.000

Results indicate that students and faculty from institutions having an FDP committee and conducting regular FDPs performed well were more confident and competing well in their carriers as can be seen from the respective scores in Table 1.

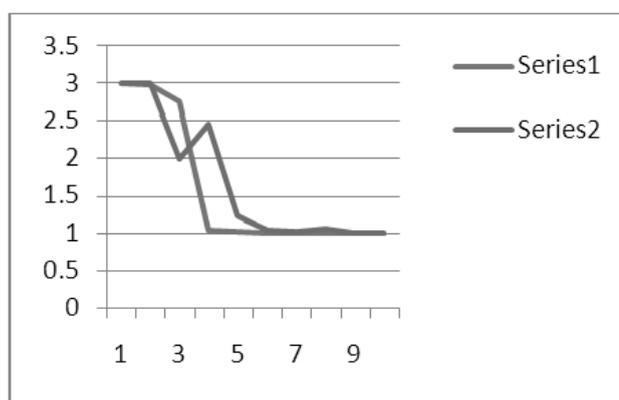
The above data is statistically evaluated by plotting a graph between 1. Institutional score for FDP and Student score, likewise between 2. Institutional score for FDP and faculty score. The R value in the first case is 0.823698 and in the 2nd case is 0.938496 which clearly indicate the results are statistically significant. Data is shown in Table 3 and Table 4 and graphs in Figures 1 and 2.

TABLE 3
Student scores.

Institutional score	Student score
3.000	3.000
2.987	3.000
2.764	2.000
1.045	2.456
1.024	1.235
1.012	1.032
1.011	1.011
1.009	1.060
1.003	1.000
1.005	0.998

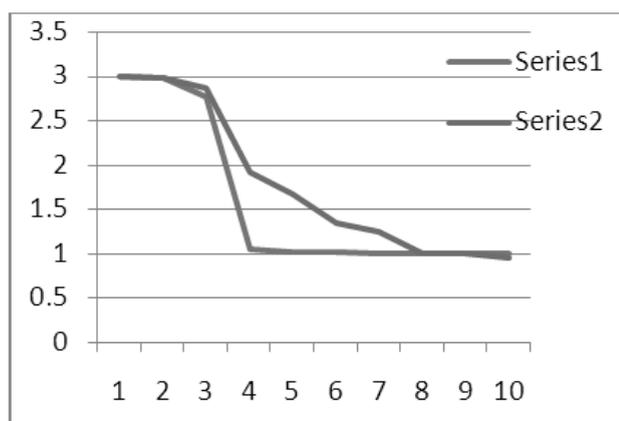
TABLE 4
Faculty scores.

Institutional score	Faculty score
3.000	3.000
2.987	2.988
2.764	2.875
1.045	1.921
1.024	1.672
1.012	1.344
1.011	1.255
1.009	1.000
1.003	1.000
1.005	0.953



Series 1: institutional score for FDP, Series 2: Student performance score

Fig. 1. Institutional score for FDP vs. Student performance score.



Series 1: Institutional score for FDP, Series 2: Faculty score

Fig. 2. Institutional score for FDP vs. Faculty score.

Now that we have evaluated the importance of FDP, we also want to suggest on how to establish an FDP committee and all the possible objectives that an FDP can address. FDP committee: every institution can form an FDP committee, consisting of senior faculty, eminent personalities from education department and student volunteers.

Objective Addressed by an FDP

Different methods based on different theories of learning can be adopted. There is no ideal method and all programmers have their own advantages and disadvantages (Steinert Y. 2011).

Any FDP should fulfill the following objectives

1. Development of faculty skills of instructional technology, small group teaching, media, courses and curriculum design
2. Professional development as educators, researchers and administrators.
3. Organizational development for career advancement.
4. Personal development like life planning, interpersonal and communicational skills of faculty members.

5. Any of the methods depending on key situational factors like financial support, campus resources, and human resources can be adopted.

Discussion

Many studies done on the importance of FDP, mostly in developed countries. The need for FDP has already been felt and necessary steps were taken to establish institutional committees for FDP and seen that they are implementing the objectives efficiently. For example in one of the studies the necessity of educational skills were emphasized (Gruppen LD, Frohna AZ et al 2003). Another study indicated that these skills should address a wide range of professional challenges (Kabat et al., 1989). Another study identified that there is a constant pressure on the faculty to improve their educational skills and that these pressure arise because of advancements in contemporary curriculum and to limitations in resources for research (Lancaster et al., 2014).

These challenges can be met by the professional institutions by establishing a FDP. Many studies were done to establish the significant role of ongoing FDPs in developed countries. Studies are very limited for the Indian scenarios expect an occasional paper about the efforts of AICTE on behalf of the government of India. Various institutions, though, constantly conduct some or the other form of FDP, there are very few institutions doing this on a regular basis. Therefore a study was conducted in a small town like Khammam to emphasize the need for the establishment of an institutional FDP committee for regular conductance of FDPs. It was observed that institutions conducting FDP on a regular basis were able to bring about a significant improvement on part of both the students and faculty. This was supported in one of the studies where it was concluded that FDPs resulted in enhanced teaching performance by instructors and improved learning outcomes for students (Wilkerson and Irby 1998). Another study similarly summarized the outcomes of FDPs in terms of high satisfaction and change in the attitude of faculty towards teaching and development of educational skills (Sorcinelli, Austin et al., 2005). Our study evaluated the reasons for institutional preference by the student at the time of admission and its relation to faculty competencies and also the effectiveness of FDPs and their impact both on students and faculty. We substantiate the above studies and strongly reiterate the importance of FDP.

Increasing student diversity with varying cultural and academic background can be effectively tackled by well trained faculty. This is well substantiated in one of the studies (Wilkerson, Irby, 1998).

Conclusions

It is concluded that the competency of faculty in pharmacy institutions is very essential in this ever-advancing world. It can be improved with the help of FDP. Therefore FDPs have to grow well enough to be established as an important inclusion in professional

institutional requirements. FDPs constitute a strategic lever for institutional excellence and quality and also for better student competencies and skills in any future career situations. It improves the readiness of institution to adapt to ever increasing demands and complex challenges in education.

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