

Evaluation of Students to Select Different Educational Technique Using Dreem

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ABSTRACT

Introduction: Problem-Based Learning (PBL) could be an instructing strategy in which complex real-world issues are utilized as the vehicle to promote student learning of concepts and standards as opposed to direct introduction of facts and ideas. In expansion to course content, PBL can promote the improvement of basic thinking aptitudes, problem-solving abilities, and communication skills. It can also show new horizons for working in group to become a lifelong learner.

Objective: To evaluate the educational environment in medical and allied health sciences students at Rawalpindi Medical University.

Material & Method:

Study design: quantitative cross sectional

Settings: Rawalpindi Medical University

Duration: Six months i.e. 1st January 2021 to 30th June 2021

Methodology: The students of medical from medical college and Physiotherapy from allied health sciences have been selected. Pre validated questionnaire DREEM was used to evaluate the perception of educational environment at Rawalpindi Medical University students for using educational strategies. The students enrolled in the study after giving consent.

Results: The total number and percentages were 1200/1750 (68.5%) from medical students and 70/150 (46.6%) from allied health sciences participated in the study from Rawalpindi Medical University.

Table 2 shows two groups, total participants, maximum score, mean value, Standard deviation and p value.

The overall DREEM score of medical group was 135/200 which use PBL approach and Allied group score was 102/200 which was on traditional strategy. It is also noticed that mean score from the medical group is greater than 3 while Allied health sciences lower than 2.

Conclusion: Differentiating student discernments of educational environments appear related with the medical schools embracing different educational methodologies in our setting. Cautious and detailed interpretation of DREEM symptomatic results can be utilized to identify qualities and shortcomings of educational program and needed intervention. In any case to sort of educational programs experienced, institutional mediations show up fundamental in the areas of academic and social support and stress management. Continuous assessment of learning situations ought to be linked to making strides the instructive encounters for medical students.

Keywords: PBL, DREEM, Educational Environment, Learning

INTRODUCTION

The selection of specific learning theories and philosophies impacts the design and support of curriculum which in turn are characterized by particular instructing and learning situations. Critical separations may therefore be conveniently made around the way students experience curriculum plan and related learning situations. The best tested educational programs plan, problem-based learning (PBL) provides students with the opportunity to create advanced cognitive abilities such as issue problem solving, basic thinking, and collaborative learning aptitudes. In expansion, it requires a fundamental change within the plan and delivery of learning and teaching strategies from instructor to student centered learning situations^{1, 2}.

Medical institutions in Pakistan have changed over to hybrid PBL educational module based since of its potential to assist students create problem solving, independent learning and cooperative abilities among other things while others have held or are considering adjusting, more conventional curricula. All undergrad medical education curricula require progressing investigation and enhancements to assure quality and guarantee students' learning encounters are relevant, motivating, beneficial, and pleasant. Several models that can guide the method of educational modules improvement have been proposed which of Woods (1995) is especially relevant here, since it incorporates direction on how to form appropriate PBL situations for learning subject matter, prepare skills, and creating ability³.

The PBL concept suggests collaboration of two or more instructors at a particular level when arranging, executing, and assessing a course, which primarily includes the exchange of

training expertise and reflective discussion. It has been appeared that the PBL approach gives inexperienced instructors with changed and valuable learning encounters and supports their professional and personal progression. Working inside a group permits instructors to share information and aptitudes in a variety of subjects, driving to a move from "expert learner" to "expert." Classroom collaboration empowers instructors and students to share a discovery process. Particular subjects can be addressed to from a specific viewpoint or with an educational approach including cooperation that gives an awfully pleasing participation for learners^{4, 5}.

Environmental learning is defined as everything that is happening within the lecture hall, department and/or in the institution and is said to be influenced by the educational modules. It has been suggested that curriculum's most noteworthy sign and conceptualization will be as the environment, educational and organizational which shows what is happening within the medical school. Thus, the quality of the educational environment is crucial for viable learning and students' recognitions of their instructive situations are a useful basis for adjusting and progressing learning quality.

The Dundee Prepared Instruction Environment Measure (DREEM) inventory could be a broadly utilized valid and reliable inventory to evaluate the instructive climate of medical schools. It has been used to comparatively analyze the learning environment of different healthcare educational sectors, students at different stages of their course, schools at diverse stages of curriculum reform.

Most of the medical schools in the world have started to apply a hybrid PBL curriculum. This includes several integrated learning strategies including lectures, PBL, laboratory based, task based, community based learning^{6,7}.

MATERIAL AND METHODS

It was quantitative cross sectional study. The students of medical from medical college and Physiotherapy from allied health sciences have been selected. Pre validated questionnaire DREEM was used to evaluate the perception of educational environment at Rawalpindi Medical University students for using educational strategies.

This is instrument of choice to evaluate the educational environment. Composed of 50 items further sub divided into five domains. (1-perception of learning, 2- perception of teachers. 3-academic self-perceptions, 4- perception of atmosphere, 5-social self-perception). The interpretation of the scores by McAleer and Roff tells that a score in between 51-100 have lot of problems, 101-150 indicated more positive than negative. All data were collected, entered and analyzed by SPSS version 23.

RESULTS

Table 1: Demographic Population & Responses

No.	Parameter	Medical College Students (PBL)	Allied Health Sciences (Traditional)
1	Response	1200/1750	70/150
2	Age	18-25	18-25
3	Gender	Male 500	Male 60
		Female 800	Female 90

Table 2: Scores by both groups

No.	Parameter	Grp	Total no.	Max score	Mean	SD	p-value
1	Perception of learning	Med	1200	49	37.44	6.40	0.000
		DPT	70	49	23.55	5.70	
2	Perception of Teaching	Med	1200	45	26.20	6.10	0.130
		DPT	70	45	23.45	4.50	
3	Academic self-Perception	Med	1200	34	20.20	5.90	0.000
		DPT	70	34	13.85	4.85	
4	Perception of the Atmosphere	Med	1200	48	33.50	8.20	0.000
		DPT	70	48	25.30	6.35	
5	Social Self Perception	Med	1200	30	17.20	3.50	0.094
		DPT	70	30	16.10	3.90	
6	Total	Med	1200	200	135	25.6	0.000
		DPT	70	200	102	17.20	

Table 3: Items Mean score of both group

No.	Medical Students Mean score	Allied Students Mean Score	Subscale	Item
1	3.47	1.89	Teaching well focused	4
2	3.28	1.78	Teaching is student centered	9
3	3.89	1.53	My problem solving skills are being well developed	28
4	3.22	1.90	The atmosphere motivates me as a learner	38

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It is also noticed that mean score from the medical group is greater than 3 while Allied health sciences lower than 2 in table 3.

DISCUSSION

This study confirms that the hypothesis that students of a PBL educational programs would assess their learning environment more emphatically than their counterparts experiencing a basically customary curriculum⁷.

The main finding of this study shows essentially higher overall scores on the DREEM inventory among students in a PBL educational modules are empowering and lend back to the introduction of innovative approaches to educating and learning in our setting. The score of 135 out of 200 is more positive than negative in spite of the fact that not "excellent". It is clear subsequently that no learning environment is without weaknesses, since DREEM scores of over 139 have not been watched within the writing to date. The differentiating student perceptions watched in our study ought to in this manner not be interpreted as suggestive of a proposal for transfer from an ordinary to PBL educational modules⁸.

In reality, a highlight of our findings was required for student support and direction at both groups, similar to that of previous studies. The open explanations at the conclusion of our inventory provided data that was in consistency with quantitative information with respect to for illustration, the need for stress management support. There's sufficient documentation indicating that medical students in all educational program sorts are inclined to stress, creating uneasiness, sadness and lack appropriate techniques for adapting with stress. All things considered limited information, the causes and results of student distress are highlighted. Multicenter studies are required to identify programmatic and individual highlights that impact uneasiness and stress among these students^{9,10}.

In addition, this study recognized differentiating views with respect to what students termed "spoon feeding." The term is regularly utilized within the field of education to depict conventional teacher-centered practices including giving students with ready-made options and judgments and for the most part treating them "in a way that discourages free thought or activity, as by over indulgence" an approach oppositely restricted to PBL wherein emphasis is put on dynamic cooperation in the learning process, advancement of understanding and application of information in genuine settings, independence in thinking, reasoning and problem solving¹¹.

Since the problem-based learning strategy is exceptionally viable on the quality of students 'learning, the present study was conducted to explore the impact of the problem-based learning strategy on students' fulfillment courses based on the DREEM survey^{12,13}.

CONCLUSION

Differentiating student discernments of educational environments appear related with the medical schools embracing different educational methodologies in our setting. Cautious and detailed interpretation of DREEM symptomatic results can be utilized to identify qualities and shortcomings of educational program and needed intervention. In any case to sort of educational programs experienced, institutional mediations show up fundamental in the areas of academic and social support and stress management.

Continuous assessment of learning situations ought to be linked to making strides the instructive encounters for medical students and advance studies are suggested to investigate male and female discernments of learning environment in our context and take after up on educational programs advancement to determine impact of changes on discernments of learning situations in both groups.

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