

**ORIGINAL ARTICLE****PROBLEM BASED LEARNING- STUDENT PERSPECTIVE**<sup>1</sup>Pushpa Goswami, <sup>1</sup>Fahmida Gul, <sup>1</sup>Farhana Rajpar<sup>1</sup>Department of Anatomy, Liaquat University of Medical and Health Sciences, Jamshoro**Corresponding Author:****Dr Pushpa Goswani**, MBBS, M. Phil (Anatomy)

Associate Professor, Department of Anatomy, Liaquat University of Medical and Health Sciences, Jamshoro Sindh

**Email address:**

pushparamesh1998@gmail.com

**Co-Author:****Dr. Fahmida Gul**, MBBS, MCPS

Lecturer, Department of Anatomy, Liaquat University of Medical and Health Sciences, Jamshoro Sindh Pakistan

**Dr. Farhana Rajpar**, MBBS, M.Phil. Anatomy.

Assistant Professor, Department of Anatomy Liaquat University of Medical and Health Sciences, Jamshoro Sindh Pakistan

**Article received on:** 22-06-2020**Article accepted on:** 15-12-2020

**RESULT:** Out of 151 medical students, 55.63% strongly disagree that PBL is difficult to acquire knowledge, meanwhile, 36.2% strongly agree the PBL enhances their communication skills and 52.32% students strongly agree that it is better to improve their understanding of topic. In present study, out of 151 students, 18(11.9%) strongly agree and 70(46.4%) just agreed that PBL is time consuming. Among 70 (46.4%) who agreed that PBL is time consuming, 18(11.9%) also agree that it improves understanding of

**ABSTRACT****OBJECTIVE:**

To determine the student perspective regarding problem-based learning as teaching methodology in medical teaching.

**METHODS:**

This prospective study was conducted on medical students at LUMHS Jamshoro from February 2019 to April 2020. This study conducted on 151 volunteer students of first and second year MBBS (n=151). Students enrolled in programs other than MBBS were excluded. Predesigned proforma administered among students to determine their perspective regarding problem-based learning as student centered teaching methodology. Data analysis done on SPSS version 22.0. Frequency % calculated for qualitative variables. Qualitative data compared by applying chi square test. P value <0.05 taken as statistically significant.

topic while 18(11.9%) strongly agree that it improves better understanding of topic. (p value <0.01).

**CONCLUSION:** The results of this study revealed students' satisfaction with the PBL as better teaching strategy for better learning of students.

**KEYWORDS:** student perspective, problem based learning, medical students.

**Article Citation:**

Goswani P, Gul F, Rajpar F, Problem based learning- student perspective. JIMC. 2020 3(2): 13-18

## INTRODUCTION

Students' tactics for getting knowledge are vital to the course of learning. Preceding research has displayed that inducing students' methods for deep learning is a multifaceted process and appears considerably more tough than anticipated, even in student-activating learning atmospheres. Evidence based research on academia has revealed that learning methods are wedged not only by learning environment, but also by how the students observe and perceive it. Nevertheless, the way in which it is perceived by students and students' learning approaches is poorly understood.<sup>1</sup> Problem based learning (PBL) is most usually used in medical education to enhance self-regulated learning skills. Self-efficacy ideologies spot students' inspiration with assistance of supervisory courses.<sup>2</sup> Its mandatory for future physicians and surgeons to have cognitive and intellectual capabilities that comprise problem solving as well as timely decision making skills with comprehensive clinical judgment. They also have a general responsibility and commitment to continue their skills and clinical knowledge by way of appealing in life-long learning.<sup>3</sup> PBL benefits students for emerging operative problem solving skills and for appealing active participation in class as well as also empowering them to concept knowledge by their own efforts.<sup>4</sup> Various graduation curricula comprise PBL as a mainstay in their curricula. Undergraduate students, think PBL as this is a transformation from teacher centered to student centered teaching methodology. Numerous studies undertaken to learn about insights in addition to mid-term test concerts of academy students registered in substantial education classes when PBL is used against old-style teaching approaches.<sup>5</sup> PBL is one of the teaching methodologies in which the students practice their own efforts to solve the problem/ clinical scenario or case to outline

their own objectives for learning purpose. So, they perform self-directed independent studies before presenting and discussing provided clinical scenario or problem in class. Subsequently, return to their group to debate and present their efforts to solve the provided problem to improve their learned information in lectures and self study.<sup>6</sup> As PBL is becoming more extensive in use across medical curricula, it is principally very significant to understand the influence that such methods have on students' enthusiasm as well as motivation for learning. This study has been designed to identify the students' perspective regarding benefits of adopting problem based learning in our curricula.

## METHODOLOGY

This prospective study was conducted on medical students at LUMHS Jamshoro from February 2019 to April 2020. This study conducted on 151 volunteer students of first and second year MBBS attending PBL classes regularly in Anatomy, Physiology and Biochemistry. Students enrolled in programs other than MBBS and those who do not attend PBLs were excluded. Predesigned proforma administered among students to determine their perspective regarding problem-based learning as student centered teaching methodology. Perspective of students towards PBL was measured with help of 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree). Data analysis done on SPSS version 22.0. Frequency % calculated for qualitative variables.

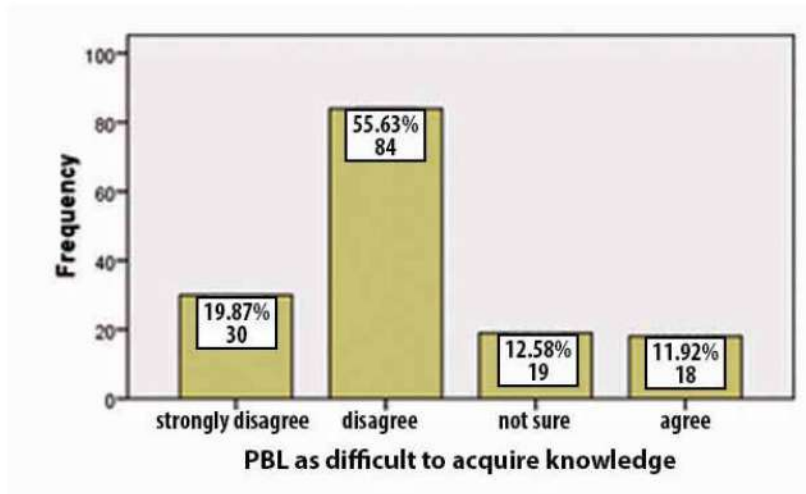
## RESULTS

Out of 151 medical students, 55.63% strongly disagree that PBL is difficult to acquire knowledge as shown in **figure 1**. While 36.2% strongly agree the PBL enhances their communication skills as shown in **figure 2**. And

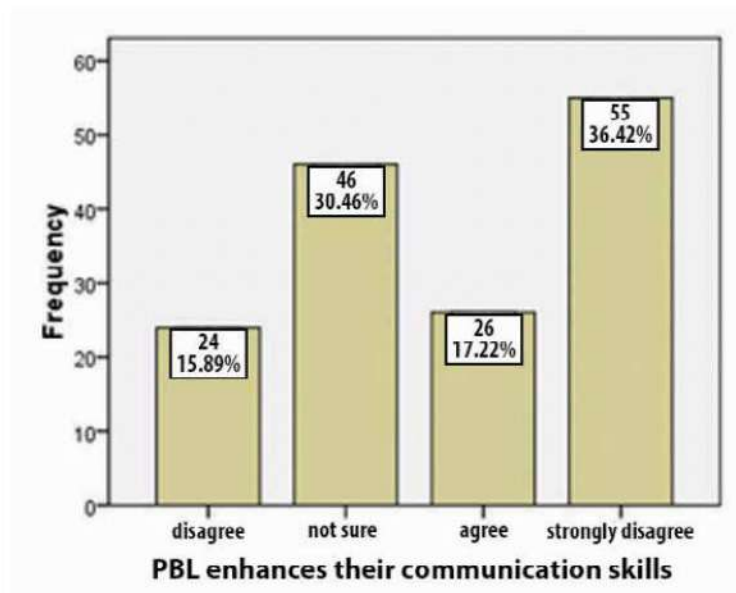
52.32% students strongly agree that it is better to improve their understanding of topic as shown in **figure 3**.

In present study, out of 151 students, 18(11.9%) strongly agree and 70(46.4%) just agreed that

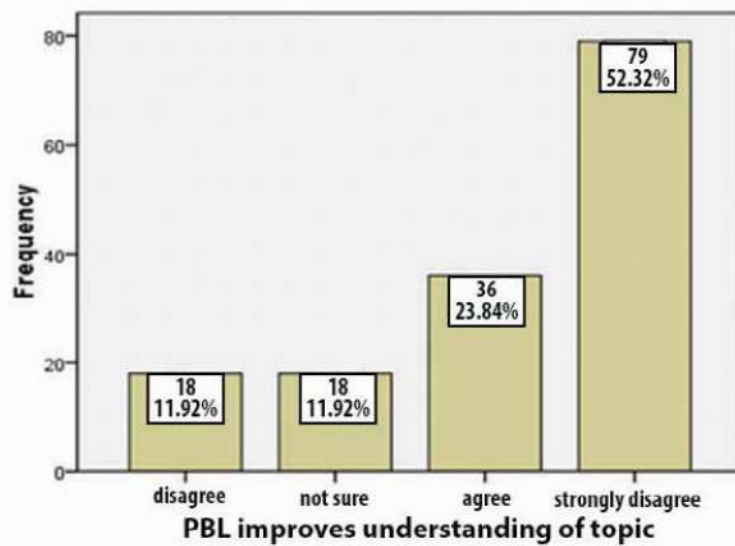
PBL is time consuming. Among 70 (46.4%) who agreed that PBL is time consuming, 18(11.9%) also agree that it improves understanding of topic while 18(11.9%) strongly agree that it improves better understanding of topic. (p value <0.01) **Table No. 1**



**Figure No.1: Frequency % of students' perspective regarding PBL as difficult to acquire knowledge**



**Figure No.2 : Frequency % of students' perspective regarding PBL enhances their communication skills**



**Figure No.3 : Frequency % of students' perspective regarding PBL that it improves understanding of topic(n=151)**

**Table No. 1: Comparison of PBL as improving understating of topic with time consuming from student perspective(n=151)**

**Crosstab**

			PBL improves understanding of topic				Total
			disagree	not sure	agree	strongly agree	
<b>PBL is time consuming</b>	strongly disagree	Count	9	0	0	0	9
		% of Total	6.0%	.0%	.0%	.0%	6.0%
	disagree	Count	0	0	0	18	18
		% of Total	.0%	.0%	.0%	11.9%	11.9%
	not sure	Count	0	0	18	18	36
		% of Total	.0%	.0%	11.9%	11.9%	23.8%
	agree	Count	0	18	18	34	70
		% of Total	.0%	11.9%	11.9%	22.5%	46.4%
	strongly agree	Count	9	0	0	9	18
		% of Total	6.0%	.0%	.0%	6.0%	11.9%
<b>Total</b>		Count	18	18	36	79	151
		% of Total	11.9%	11.9%	23.8%	52.3%	100.0%

P value <0.01 Chi square value 1.500 with df=12

## DISCUSSION

PBL is one of the pedagogical approaches for facilitating and improving teaching outcomes.<sup>7</sup> In present study, among 70 (46.4%) students who agreed that PBL is time consuming, 18 (11.9%) also agree that it improves understanding of topic while 18 (11.9%) strongly agree that it improves better understanding of topic. Out of 151 medical students, 55.63% strongly disagree that PBL is difficult to acquire knowledge. Chang BJ.<sup>8</sup> revealed that PBL is a rational footstep in the direction of emerging students' capabilities to make and integrate their basic concepts in the clinical medicine. Harvard's newly reformed 1 year pre-clinical curriculum has been lifted towards PBL instead of traditional lectures. According to his research, PBL has been playing pivotal positive role regarding learning by way of PBL but he still concluded with need for improvement and constant modification in conducting PBLs by identifying their students' perspectives and needs. Similar study conducted on biomedical students by Sockalingam N and Schmidt HG.<sup>9</sup> to identify students' needs and their perception as well as insight into what stimulates or supports the students to learn so that they can integrate accordingly to meet their needs for better learning in future problems and also for designing upcoming clinical scenarios or problems for PBLs.

PBLs started almost 30 years back 1970s' as training-oriented learning standards and highlights dynamic learning methods without straightforward starts or endings.<sup>10</sup>

The problem-based learning (PBL) approach was implemented as a treatment for advanced teaching graphic arts students in one semester to determine the effects of PBL in improving their creative rational and critical cognition outlook among students. Subsequently they concluded with PBL as playing positive role

in improving creative thought process but instead critical thinking character found not much effective in these students.<sup>11</sup> Khoiriyah AJ, Husamah H. concluded regarding PBL that it expands problem solving as well as creative skills among the students, further it was concluded that implementing PBLs even in seven grade students can improve students' learning outcomes.<sup>12</sup>

## CONCLUSION

The results of this study revealed students' satisfaction with the PBL as better teaching strategy for better learning of students.

## References

1. Gustin MP, Abbiati M, Bonvin R, Gerbase MW, Baroffio A. Integrated problem-based learning versus lectures: a path analysis modelling of the relationships between educational context and learning approaches. *Medical Education Online*. 2018;23(1):1489690.
2. Demirören M, Turan S, Öztuna D. Medical students' self-efficacy in problem-based learning and its relationship with self-regulated learning, *Medical Education Online*. 2016; 21:1.
3. Artino AR, Dong T, DeZee KJ, Gilliland WR, Waechter DM, Cruess D et al. Achievement goal structures and self-regulated learning: relationships and changes in medical school. *Acad Med*. 2012; 87: 1375–81.
4. Levett-Jones TL. Self-directed learning: implications and limitations for undergraduate nursing education. *Nurse Education Today*. 2005;25(5):363-8.
5. Alessio H. Student Perceptions about and Performance in Problem-Based Learning. *Journal of Scholarship of Teaching and Learning*. 2004;4(1):23-34.

6. Wood DF. Problem based learning. BMJ. 2003 Feb 8;326(7384):328-30.
7. Matusovich HM, Jones BD, Paretti MC, Moore JP, Hunter DA. Motivating factors in problem-based learning: A student perspective on the role of the facilitator. InASEE Annual Conference and Exposition, Conference Proceedings 2011 Jan 1.
8. Chang BJ. Problem-based learning in medical school: A student's perspective. Annals of Medicine and Surgery. 2016; 12:88-9.
9. Sockalingam N, Schmidt HG. Characteristics of problems for problem-based learning: The students' perspective. Interdisciplinary Journal of Problem-Based Learning. 2011;5(1):3.
10. Blichfeldt BS, Smed KM. Doing PBL in tourism education: a student perspective. Building our stories: Co-creating tourism futures in. 2017 Aug 20:20.
11. Ulger K. The effect of problem-based learning on the creative thinking and critical thinking disposition of students in visual arts education. Interdisciplinary Journal of Problem-Based Learning. 2018;12(1):10.
12. Khoiriyah AJ, Husamah H. Problem-based learning: Creative thinking skills, problem-solving skills, and learning outcome of seventh grade students. JPBI.2018;4(2):151-60.

#### **CONFLICT OF INCIDENCE**

No conflict of interest declared by the authors.

#### **AUTHORS' CONTRIBUTION**

PG - Principal Investigator

FG - Manuscript Supervision

FR- Manuscript Writing